Metal Slug: The Ultimate History メタルスラッグ：究極の歴史

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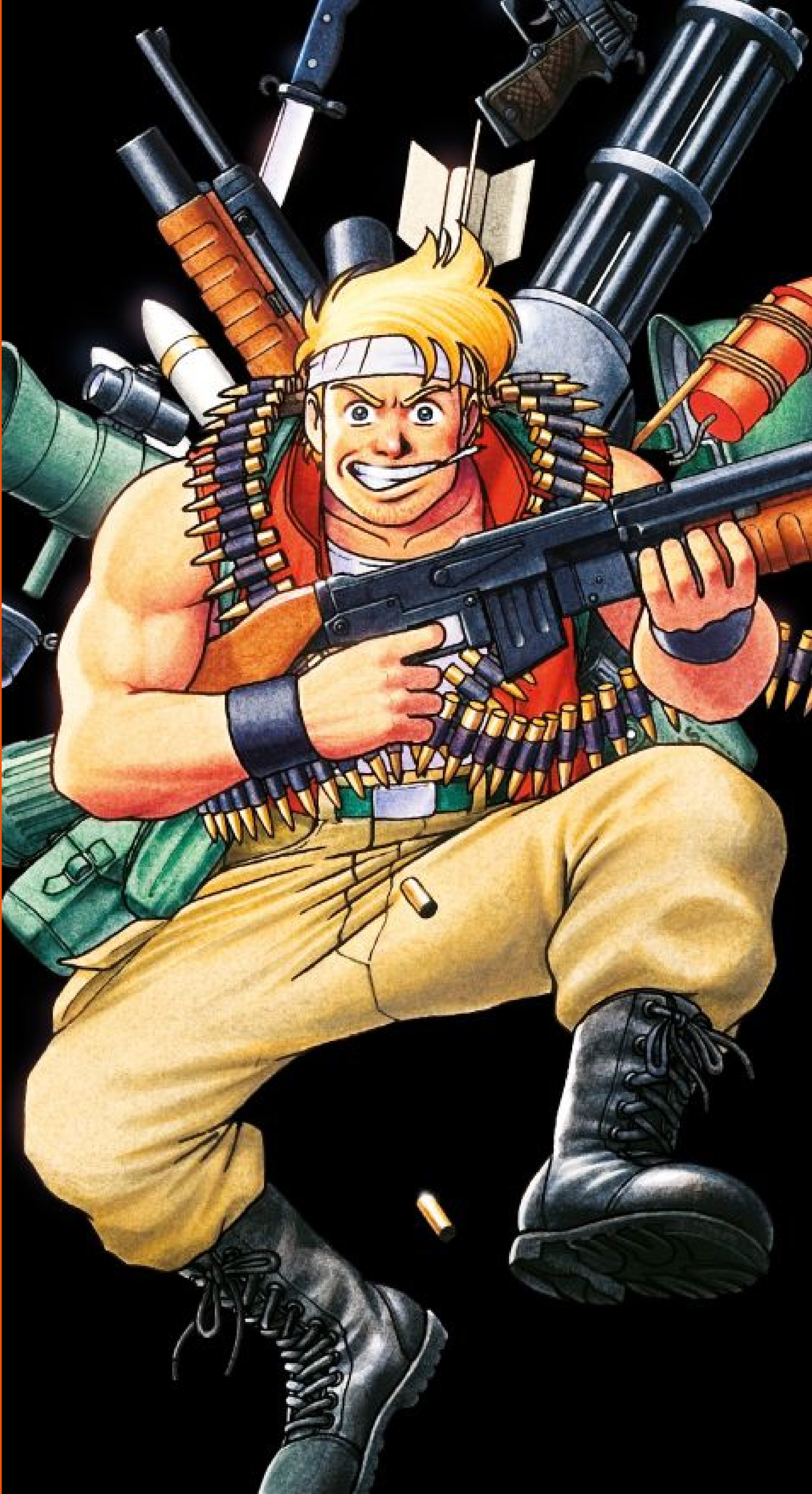

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THE ULTIMATE HISTORY 究極の歴史

METAL SLUG

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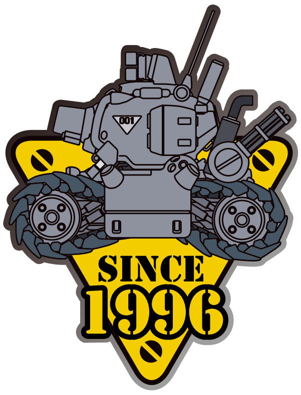
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Introduction

SNK certainly isn't short of famous and beloved franchises, but Metal Slug is arguably one of its most esteemed properties. An instant classic upon its debut in 1996, the first title laid the foundations for an action-packed series which would become globally renowned for its tight gameplay, gorgeous hand-drawn visuals and playful sense of humour. Metal Slug has effortlessly retained these core attributes across multiple sequels and spin-offs in the years since, and this publication – the first officially licensed and fully endorsed book of its kind – aims to not only illuminate the rich history of the franchise via hundreds of screenshots and a comprehensive written account of its often mysterious history, but also seeks to celebrate the iconic artwork which has made millions of players fall in love with the antics of the plucky Peregrine Falcon Squad. To help achieve this goal, SNK has offered unprecedented access to its vast archives of concept artwork and illustrations, some of which is being made publicly available for the first time within these very pages.

This book also contains ten exclusive and incredibly detailed interviews with key members of the development team, including Kazuma Kujo, Takushi Hiyamuta, Andoh Kenji and Takeshi Okui, of whom the latter two have never spoken about the series previously. These insightful discussions bust myths and reveal the real truth behind the creation and evolution of the franchise, including what fans have come to call 'Metal Slug Zero', an unreleased version of the original game in which you solely controlled the titular 'SV-001 Super Vehicle' tank.

Thanks to SNK and the talented team behind this classic run-and-gun series, the book you hold in your hands offers the most complete insight yet into one of gaming's most appealing and beloved series.

Bitmap Books, 2019

Foreword

My first encounter with *Metal Slug* was back in 1995–1996, two or three years after I joined SNK, and was back from a development subsidiary team to SNK headquarters. At that time, though, the fighting game was at its peak, and SNK was not specialised in this type of game. I was quite doubtful whether it would sell well. However, the unique world, the peculiar characters and the delicate pixel art attracted lots of fans and a growing sales volume with its epic series. After that, *Metal Slug Defense* and *Metal Slug Attack* were launched as mobile apps and downloaded over 50 million times all over the world.

This series is beloved by millions of fans around the world. Traditionally, Metal Slug was at home mainly on the NEOGEO and in the arcades, while, nowadays, players can enjoy Metal Slug on many other platforms such as the PC, PlayStation 4 and, most recently, Nintendo Switch. We are always considering both classic games and new games on different platforms. Please stay tuned with us.

Over the years, lots of gaming strategy books have been published on Metal Slug. However, there are few that focus on the graphics of the games and none that have covered the history. It's our pleasure to introduce the glamour of Metal Slug to its fans in this way.

When publishing this book, Bitmap Books have been a great help and, without them, it would not have been possible to make it come true. Special thanks go to them.

Last but not least, I would like to thank all the fans who read this book. Please enjoy the marvellous art in it!

Yutaka Noguchi, 2019
SNK Director of Quality Assurance

HISTORY

While Metal Slug is now firmly established as one of SNK's most celebrated properties, its history is perhaps unknown to many fans. The series' origins can be charted back to Irem Corporation, a Japanese company perhaps most famous for the seminal R-Type series. When a group of developers broke away to form their own studio – Nazca – they joined forces with SNK and would begin work on the first *Metal Slug* game. In this chapter, we dig deep into the full history of a series that, for many players, is the absolute zenith of the run-and-gun genre.

The History of Metal Slug

For many gamers around the world, Metal Slug is the definitive run-and-gun. With its astonishingly good animation, frenetic bombastic action and, crucially, large dose of humour that never fails to bring a smile to the face, the Nazca Corporation classic remains to this day an adrenaline rush like no other.

A fluid combination of human derring-do and brutal, heavy metal combat, *Metal Slug* and its sequels would arguably go down in history as the run-and-gun genre's finest hour. It delivered a stunning series that defied the changing face of gaming, through sheer force of programming expertise and a deeply informed arcade heritage. Decades of classic arcade gaming were captured, like lightning in a bottle, and the results were simply spectacular.

But, as this history now retells, this was no simple procession to glory for Nazca Corporation. Indeed, despite all of its celebrated legacy today, *Metal Slug* might, in fact, never have been made at all…

A rich arcade heritage

The history of *Metal Slug* begins many years before its release in 1996, in the arcade heyday of the 1980s. At that time in Japan, while home console gaming was growing, thanks to the introduction of revolutionary systems like the Nintendo Famicom, the arcade heritage of the 1970s still held sway over the lion's share of game development. And among the many companies filling the country's game centres was the Osaka-based firm, Irem.

Irem originated in a single store in Osaka in 1969, selling dispensing machines for cotton candy and, slightly later, pachinko machines. It had enjoyed a period of ascendancy during the 1970s, with titles like *Space Invaders* clone *IPM Invader* helping establish the company as a force in the arcade gaming and machine rental market.

This led to Irem releasing a series of major arcade games in the 1980s, including side-scrolling, tank-based shooter *Moon Patrol* and the seminal side-scrolling shoot 'em up *R-Type*. Not only were these titles massive successes in their own right, but they also laid the groundwork for a series of much-loved games that would go on to become classics, as well as acting as formative tools in the education of a new generation of game designers looking to live their dream and make video games for a living.

Journeymen soldiers

Among those young game designers was 22-year-old Kazuma Kujo – the future lead planner on *Metal Slug* – whose first experience with video gaming had come from one of those classic Invader titles in a Japanese game centre during his youth.

Blown away by how cool and modern the game looked, Kujo would proceed to garner a serious interest in video gaming, playing many arcade and home console titles, with the *Dragon Quest* series becoming one of his favourites. So, after studying mathematics at university, Kujo set about breaking into the Japanese video game industry and making his mark.

"I wasn't a very good player but, at the time, the Famicom was really popular, and specifically Dragon Quest *in Japan. When I played* Dragon Quest, *I was amazed at how interactive it was, and how the player could assimilate and play as the main character and go on an adventure. It opened up my imagination to other worlds and the possibilities as a storytelling medium, maybe even more so than movies and novels."*

Kujo's big break came when he joined Irem as a planner rather than a programmer; the latter career he admits he didn't initially have an interest in. And, almost immediately, he found himself being cast as a tester on Irem's latest blockbuster shoot 'em up, *R-Type II*.

"When I joined the company I wanted to be involved in planning and direction. However, the head of the business division was looking for someone who was really bad at shooting games, and he came to the department for planners, and he asked, 'Who is the worst at shooting games?' They said it was me, so that's how I got involved in testing for R-Type II.*"*

It wasn't long, though, until Kujo was heading up proper projects of his own. His first title credit as planner came in the Irem published, 1987 arcade puzzle game, *Shisenshou Joshiryou-Hen – Sichuan I*, which would later receive a Nintendo Game Boy home console port as *Shisenshou: Match Mania* in 1990.

But, while this was a crucial first success for Kujo, it wasn't really where he wanted to be in terms of game development.

"I originally wanted to make consumer games, but I was appointed to the arcade division," he recalls. However, Kujo made a name for himself at Irem and continued to make arcade games at the company; he's credited as working on many notable '80s and '90s Irem classics, including *Air Duel* and *In the Hunt* (*Kaitei Daisensou* in Japan).

"You have to give the player everything you've got, right from the start" – Kazuma Kujo

This would be a formative time for Kujo, with the young planner steeped in the art of making quality arcade games, specifically shoot 'em ups, which was one of the dominant genres at the time. Most importantly – and as Kujo notes, looking back – this period of intense learning was where he fully developed his understanding of how arcade and console games differed.

"Although I was unwillingly assigned to make arcade games, I ultimately learned valuable lessons that helped me make better console games. For example, the gameplay needs to be simple enough to be explained to the player in a short amount of time. Also, to not hold back on the best qualities of the game. You have to give the player everything you've got, right from the start. Arcade games only last a few minutes from the point when the player puts in the coin. You don't save the best for last when you don't know if the player will ever get that far. These rules were pounded into me from the days of working on arcade games."

Kujo wasn't the only member of the future *Metal Slug* team that was cutting his teeth at Irem during this period. Indeed, the man who would go on to be the composer of the legendary *Metal Slug* soundtrack, Takushi Hiyamuta, was also developing his craft, with his first music credit coming on *Air Duel* in 1990.

And, while a vertical-scrolling shoot 'em up would appear to be the perfect influence for *Metal Slug*'s bombastic, movie-like score and sound effects, the influences for that specific title actually lay in a very different place, as we'll discover later.

"After I graduated college, I was 22 years old, and I became a regular salaryman," recalls Hiyamuta. *"After working as a salaryman for three years, though, I started thinking that there must be something else I can do. That's when I thought of applying to work for a video game company. I applied to Irem and Konami. I was offered a job as a music composer at both companies, but Irem happened to be located closer to home so I decided to take their offer."*

As with Kujo, Irem would prove to be a fantastic crucible for a gamer who first became enthralled by the industry during the *Space Invader* days of the 1970s. It granted Hiyamuta plenty of creative freedom but also presented him with lots of tough challenges, too.

"We didn't have instruments, back in the day, that sounded like computer game music, just a synthesiser," Hiyamuta recounts. *"There's no difference in the thought process of writing music for bands or for games. But, back in the day, the game systems could only output eight simultaneous tones. We had to fit the music and the sound effects in eight sounds. To come up with the rhythm, bass, harmony and melody within those restrictions was where I struggled the most."*

On top of these challenges, Hiyamuta also had to get used to the incredibly fast development times at Irem, being tasked with producing a game's entire soundtrack in just two months. But, regardless of these constraints, the man who never had any formal musical training would go on to produce a series of incredibly high-quality, evocative game soundtracks for some of Irem's biggest hits. As well as *Air Duel*, Hiyamuta would soon see *Armed Police Force Gallop*, *Undercover Cops* and *GunForce II* (*Geo Storm* in Japan) added to his credits list.

"Master Akio, was my interviewer, and I was so enamoured by him I decided on the spot I wanted to join Irem" – Takeshi Okui

Irem was also the destination where two other critical members of the future Metal Slug team would cut their teeth: Shinichi Hamada and Takeshi Okui. They both remember those times well...

"I actually got offered a position at Capcom, but their HR was a little scary," recalls Okui. *"Then I got an interview at Irem and Akio, master Akio, was my interviewer, and I was so enamoured by him I decided on the spot I wanted to join Irem."*

"I just loved R-Type,*"* adds Hamada. *"I was studying programming at a vocational college and my number-one choice was Irem, followed by Capcom. I interviewed at Irem first, passed, and they made me an offer, so I took it."*

For Hiyamuta, Kujo, Hamada, Okui and the rest of the Irem staff at the firm's Osaka-based game-making office (with staff that also included many other future Metal Slug developers, including the legendary designer, Akio, as well as Meeher, Susumu, Andy and others), whether they knew it or not, they were riding the crest of a wave.

A cornered tiger

Irem's arcade game ascendancy during the 1980s continued into the early 1990s with titles like *In the Hunt* and *Undercover Cops*, and it seemed like these halcyon days would last forever. Game makers Kujo, Meeher, Akio and others were working in an environment where they could constantly outdo their past efforts with ever grander, more amazing gaming experiences.

The good times for Irem, though, were about to dramatically end. As early as 1993, there had been rumours circulating that the company was considering walking away from the arcade games production business. Interest in game centres was declining, thanks to the rise of home console gaming, and, for Irem – a company that had built much of its power through arcade games and machines – this was a serious issue.

These rumours reached a head dramatically in 1994, when employees were informed that Irem would close its game-making business for good, a fact that would leave 100 members of staff suddenly without a job. Hiyamuta vividly remembers the effect it had on him and his colleagues:

"Irem originally had two offices, one in Osaka and another in Ishikawa. Most of the video game development was done in the Osaka office, but they closed the Osaka office and kept the Ishikawa office, which made all the pachinko games. So, closing the Osaka office meant closing the video game division. Irem closed the office in the middle of the production for Geo Storm*, so it was rushed to completion."*

Okui, who was one of the few Irem staffers who worked on *Geo Storm* (*GunForce II* outside of Japan) right to the bitter end, also remembers how devastating it was for the game makers at Irem.

"You don't forget that kind of thing! We were crunching all through November and December, sleeping in the office. Then we came in one morning in the New Year, and the boss, who came from banking, came in to give the morning speech, and started off by saying how the winter had brought a cold front which had crept into the business, too. Then he starts telling us how handing in our resignation now would be for the best. There were people getting upset and others throwing the game design docs in the air. Geo Storm *was only half-done."*

Within months, the once mighty Irem, one of the world's foremost arcade game makers of the 1980s and early 1990s, was no more. The futuristic, military run-and-gun *GunForce II* was the last title to come out of the company, in 1994. The game's production went right down to the wire, to such an extent that there wasn't even time to program in a credits sequence after finishing the game; *GunForce II* simply restarts on a loop as soon as it's beaten.

But, from this chaos, an exciting new Japanese project was about to emerge that would not only help Hiyamuta, Okui and their colleagues, but also enable the production of one of the greatest 2D video games ever made.

Shin Nihon Kikaku

Following Irem's decision to shutter its game-making business, the now unemployed members of staff immediately began casting around for potential employment opportunities at the rival Japanese video game industry companies operating in the early 1990s.

One of those rivals was SNK Corporation, which, since the late 1970s, had been producing arcade games and game centre hardware. Now, in 1994, it was deep into the lifespan of its NEOGEO MVS arcade system and NEOGEO AES home console, with the latter increasingly becoming a focus for the Osaka-based company.

As the lead planner on *Metal Slug* remembers, it was this close proximity to SNK that helped him and many of his colleagues get back on their feet following the shuttering of Irem's game-making division.

"Groups of people started to form depending on where they were going next," Kujo recounts. *"There were groups of people who went to SEGA, Atlus, Hudson, etc., but one of the executive managers at SNK was a former Irem employee. That manager was in close contact and friends with the visual manager at Irem. So, when all of this was going on, he suggested that we work for SNK in the form of a subsidiary, which became Nazca. As such, among the chaos of the closing of the Irem office, we were able to form Nazca relatively quickly."*

Hamada also vividly remembers the period of limbo between Irem announcing it was shutting its game-making division and SNK funding Nazca Corporation.

"Before Irem closed down, Meeher and Kujo-san were holding meetings all the time, and one time I overheard them saying, 'We're talking to Human this week, the next week it's…' So they were scouting around for companies to work with."

It seems like Meeher and Kazuma Kujo were really influential, not only in securing the deal that they needed with SNK, but also in drumming up conscriptions for the new company. Hamada humorously recalls how certain members of Irem initially were looking at other companies other than Nazca as employment favourites:

"Actually, Andy wanted to go to Hudson, and, when I asked him why, it was because their development department was called a 'research lab' and he had a thing about working in a lab. Meeher and Kujo-san took him out drinking one night, and the next day he'd changed his mind and was all 'I want to join SNK!'."

But that speed of transition, while good in terms of keeping the new Nazca team making both games and money, was much harder mentally to process for the group. Within months of winding up at Irem – with some members literally working right to the bitter end on *GunForce II* – they now found themselves working for a company they once considered a respected foe.

"At the time, it was hard to comprehend that we had to make games for a company that, until just a few days ago, were our rivals," Kujo notes. *"I think everyone felt a certain amount of conflicting feelings, with everyone scattering to different studios. We had been working at Irem with a certain amount of pride and sense of rivalry toward SNK, Capcom, Namco and others. We were a smaller company compared with them but equally determined to make something special. To go from that sense of rivalry to jumping the fence, and start making games for them required some time to adjust."*

> *"Pretty much all of us at Nazca were former Irem employees. The Metal Slug team was about ten people" – Takushi Hiyamuta*

SNK, either via tactical decision, respect for the ex-Irem staffers, or by pure convenience, aided the Nazca team in this regard by setting them up as a quasi-independent studio. The team was funded by SNK and positioned in a separate office to the rest of its games division.

"The developers at SNK were very respectful towards us," says Kazuma Kujo. *"We were also in a different building, so there weren't a lot of opportunities for us to interact during the two years that Nazca was established. But, in the few instances that I did talk to people from SNK, I felt there was a certain amount of respect towards us as former Irem developers.*

"I think it was their way of respecting and preserving our spirit. SNK had their various pre-existing titles and IPs. They probably figured that it wouldn't work to try to force our team into SNK's culture, as there would be no benefit in doing so. I felt it was their way of protecting us from being engulfed into SNK."

But, while SNK funded and set up Nazca, the scale of the operation, compared with Irem, was an order of magnitude smaller, as Takushi Hiyamuta remembers:

"Pretty much all of us at Nazca were former Irem employees. The Metal Slug *team was about ten people. Come to think of it, I don't think there were that many of us. There were 100 at Irem, and about 20 joined Nazca. I was the only one doing sound, two planners, six to eight designers, five programmers. How many does that make?"*

"The core team for Metal Slug *was made up of staff from* In the Hunt*,"* confirms Okui, before adding that the majority of designers came from Irem's old A team, and the majority of programmers came from its B team.

As to why Hamada, Okui and others decided to join the newly formed Nazca over a more established rival games company, and especially in a time where these big players were making their first big steps into 3D gaming rather than the traditional 2D, Shinichi is wonderfully candid:

"We joined Irem because we loved R-Type*, so I was ecstatic to be able to make a game with the artist behind that game, Akio-san. This opportunity gave me a great sense of responsibility, and that outweighed my concern about 3D. If Nazca's first game didn't go well, that would be it for the company, so a second-rate job wasn't an option. Having said that, I - well, all of us - had absorbed a lot of knowledge about the art of 2D action games while at Irem."*

Making games downtown

So, just two months after Irem closed its game development doors, Nazca began work as a subsidiary of SNK. Initially, the team was tasked with porting games to the Sony PlayStation and SEGA Saturn, however, it wasn't long before SNK allowed Kujo and company to start making their own games, with the now famous *Neo Turf Masters* arcade golf sim and the title that would eventually become *Metal Slug*, the first two original Nazca games.

This brings us to a question that has long puzzled Nazca enthusiasts: why were the first two games produced by the fledgling company so disparate? After all, it was hard to think of two titles that were more diametrically opposed than *Neo Turf Masters* and *Metal Slug*, with one tasking you with chipping your golf ball 'ON THE GREEN!' and the other ordering you to torch wave upon wave of enemy soldiers with a 'FLAME SHOT!' flamethrower.

What added to this mystery was the fact that, across both titles, but especially *Metal Slug*, many of the game makers listed in the end credits are done so only under pseudonyms. For decades, it was nigh-on impossible to find out not only why these games were so different, but just who had worked on them and how Nazca managed to make both of them in just two years, despite also being engaged in porting titles, too.

But, as Kujo comments, the answer is a lot more straightforward than anyone thought. *"We actually were making golf games at Irem, as well. And the teams that were making both* In the Hunt *and Irem's golf games both went on to join Nazca, so we had two development teams working simultaneously on two titles."*

Hiyamuta backs this up, noting that, *"The* Neo Turf Masters *staff were a second team developing simultaneously with* Metal Slug*, but they didn't have as many on their team because the designers, programmers and myself were working on both projects."*

One quick look at Irem's catalogue of games in the early 1990s confirms this, too, with both the *Major Title* and *Major Title 2: Tournament Leader* golf games produced in 1990 and 1992, respectively. And one quick play of *Major Title*'s sequel – which got a Super Nintendo Entertainment System port after its arcade debut – shows, without a shadow of a doubt, the thread of heritage between that series and *Neo Turf Masters*.

From *Tournament Leader*'s aesthetics and graphics, to its actual mechanics and multiple playable characters, all with their various strengths and weaknesses, the similarities between the titles are marked. And, in light of Kujo, Hiyamuta, Hamada and Okui's testimony, it proves that, when Nazca was formed, some of its employees moved straight into doing what they had done best at Irem, while others moved on to conceptualising *Metal Slug*.

Pseudonyms and secrecy

But, what about the fact that almost every single one of the Nazca staff who worked on *Metal Slug* is listed under an alias or pseudonym? Surely, as a brand-new studio looking to make a name for yourself, the last thing you want to do is effectively hide who you are?

Indeed, that is a question that has long perplexed gaming enthusiasts and, for years, prevented the truth being told about one of the greatest NEOGEO games of all time. How can you discern the truth about a title when the people who made it were largely shrouded in secrecy? And just why would people who spent two years of their lives dedicated to producing a masterwork then detach themselves from any real-world credit?

Could it have had something to do with the fact that Nazca was being funded, secretly or not, by SNK? Or that the studio was set up remarkably quickly after Irem shut its doors, and that games were begun incredibly rapidly and shared many common elements with Irem titles? Could it even have been that legal issues might have been raised if the truth about who Nazca was composed of had come to light?

For decades, these questions remained unanswered, but, right here and now, this Metal Slug history sets the record straight, with both Kazuma Kujo and Takushi Hiyamuta commenting on the pseudonyms and secrecy.

"At that time, Japanese game companies were very cloistered, like a closed society, and to announce their real names was prohibited. Therefore, we used our nicknames instead," states Kujo.

"Yes, that's true," adds Hiyamuta. *"At the time, these skills were highly specialised. It's not so much now but, back in the day, knowledge of the hardware and developers with a certain amount of accomplishments were liable to be recruited to competitors, so companies were very careful to hide their names."*

So, while that seems to clear up the reasons behind the decision, with a different time and culture mandating that Japanese game companies protect their best assets with secrecy, who exactly were the men who formed the Nazca Metal Slug development team?

We've already heard from two of the game's major players in lead planner Kazuma Kujo and composer Takushi Hiyamuta. However, there are plenty of pseudonyms in *Metal Slug*'s credits, and they are but two members of the team.

> *"I had nicknames like Oni or Kire or Tsumi, because I was angry" – Kazuma Kujo*

In terms of design, six names are listed in the *Metal Slug* credits: Akio, Susumu, Max.D, Tomohiro, T.Okui and Kozo. Under the planning section, both Meeher and Kire-Nag are listed, while, under sound, both Hiya! and Jim are mentioned. Finally, programming is detailed as being dealt with by six Nazca staff: Hamachan, Andy, A.Kurooka, T.Yokota, H.Yamada and Pierre.

And while, even today, many members of this team remain unknown, we can now shed light on who a few of *Metal Slug*'s key staff actually are, in terms of their nicknames.

Foremost among these is lead planner Kazuma Kujo, who is none other than the oddly named Kire-Nag. What does Kire-Nag stand for? Kujo humorously clears things up:

"I was always quite angry when I was in my 20s. I was frustrated about my shortcomings as a game developer, and also about things that didn't go as I wanted them to. So I think that's why I had nicknames like Oni or Kire or Tsumi, because I was angry. Oni is an ogre, or demon. Kire means anger, or it can mean snapping. Tsumi means sin, or wrongdoings. So, that was me in my 20s!"

And, as for Nag? Well, that's an interesting story. In a rare 2013 interview with Kazuma Kujo, respected video game industry reporter John Szczepaniak recounted a tale where, after interviewing Kujo in Tokyo and returning to the UK, he met a third party who claimed to know Kazuma, and stated that his real name wasn't in fact Kujo, but Nagura. Now, while Szczepaniak was very clear to note that this information has not been corroborated, he did postulate that the Nag in Kire-Nag could actually be short for Nagura.

Next up is sound guy Hiya!, which doesn't take too much of a jump to realise is none other than Takushi Hiyamuta, with the first part of his surname bolted together with an exclamation mark.

In addition, T.Okui is none other than Takeshi Okui, who would go on to work on the seminal *Final Fantasy XII*; A.Kurooka is none other than Atushi Kurooka, who was a programmer on *Metal Slug* and *GunForce II*, and now works for PlatinumGames; while the intriguingly named Hamachan is Shinichi Hamada, the now recognised expert in VR game design.

Andy – who was a programmer on *Metal Slug 1*, *2*, *3* and *X* – is Andoh Kenji. Kenji was and still is known as a real programming wizard, and, on the first *Metal Slug,* was responsible for programming the game's core task system.

In terms of other members of the *Metal Slug* team, there's still plenty of ambiguity as to who these legends actually are. Rumours indicate that the master designer Akio is actually named Ohyabu, while Meeher, who would be such a crucial player in the design and production of *Metal Slug 1*, *2*, *3* and *X*, is rumoured to have now left the video game industry altogether. Finally, Pierre's surname is thought to be Takada. Unfortunately, as of today, we are still no closer to discovering the truth behind their real-world identities.

Full metal jacket

So, set up and funded by SNK, as well as given the freedom to pursue their own new titles for the NEOGEO MVS and NEOGEO AES gaming systems, the *Metal Slug* Nazca team began conceptualising their new project.

But, while a heritage of titles from Irem, featuring a heavily detailed art style and complex mechanical themes, helped inform the team in the design of *Metal Slug*, where specifically did the team – and, notably, lead designer Akio – take influence from?

Following the release of *Metal Slug,* many gamers couldn't help but spot similarities between the titular 'Metal Slug' tank, the Super Vehicle-001, and Shirow Masamune's Bonaparte tank in his *Dominion* manga[1], as well from numerous vehicles in Hayao Miyazaki's *Daydream Data Notes* art book[2], which includes a series of very detailed military tanks, boats and airplanes.

Elsewhere, gamers began to notice how Irem's last run-and-gun hurrah, *GunForce II*, also had numerous similarities in gameplay and aesthetic. Were these things influences for the *Metal Slug* team?

Kazuma Kujo helps clear this up:

"Mr. Akio was inspired by a lot of different things. He liked Ginga Tetsudou [999] and Akira *as well. It wasn't just Hayao Miyazaki's book. He was inspired by artists, not only in the video game industry, but from outside the industry.* Uchu Senkan Yamato *was another, and* Gundam*. But, in regard to* Metal Slug*, I remember that he was particularly influenced by Hayao Miyazaki's book, because that book was in the office and I would see him pick it up and read it every day."*

And it would seem that this Miyazaki inspiration extended quite deeply for Akio and the Nazca team in general, with even the main protagonist of *Metal Slug*, Marco Rossi, sharing the same first name as a major figure in the *Daydream Data Notes* artwork and, more famously, the central character in the Studio Ghibli film *Porco Rosso*, Marco Pagot. This was a hat-tip that would be extended further in later Metal Slug titles with the introduction of the new playable character, Fio Germi, who once more shared a first name with a *Porco Rosso* protagonist, Fio Piccolo.

Another rumoured source of inspiration was showcased by game art website, *Video Game Densetsu*. It highlighted a series of scenes from Japanese anime, *Patlabor: The Movie* [機動警察パトレイバー *the Movie*][3], that bear an uncanny resemblance to certain visuals from *Metal Slug*. This, however, has never been confirmed by the developers.

As for whether *Metal Slug* was influenced by *Geo Storm*, Hiyamuta explains the truth in crystal clear detail:

"Geo Storm *looks like it was made by the Metal Slug team but actually, it isn't.* Geo Storm *was originally a different project, but the development was so far behind – back when it was still called* GunForce II *– so the members who made* Metal Slug *were added to the* Geo Storm *development, which led to* Geo Storm *looking more like* Metal Slug."

And he also backs up Kujo's comments that Mr. Akio and the team were very much inspired by Hayao Miyazaki and the Studio Ghibli films of the late 1980s and early 1990s:

"In terms of the visual direction of the game looking like a Hayao Miyazaki movie, the aim was to make it look like a retro, WWII, European warfare game, although the content is very sci-fi. That style, I guess, is similar to films like Miyazaki's Porco Rosso*, and, needless to say, Japanese artists admire and are undeniably influenced by Studio Ghibli and Miyazaki-sensei's work."*

That heavily detailed and rich art style, which was evocative of the best output of one of Japan's foremost animation studios, was not just something that anyone could produce, and was not something that could be achieved on any old gaming hardware.

With the team capable of leaning on the NEOGEO architecture, which consisted of the powerhouse Motorola 68000 CPU, as well as dedicated graphics and audio processors, SNK had provided Nazca with the foremost piece of gaming hardware of the 16-bit era.

The fact that you could have such incredibly smooth and slick animation on a home video console, that you could have the full arcade experience without going out to the local game centre, was one of the NEOGEO AES's biggest strengths. And, needless to say, its ability to replicate the NEOGEO MVS arcade experience so faithfully was a powerful driver in how the Metal Slug team approached production of the game for both platforms.

"The NEOGEO's biggest merit," says Okui, *"was being able to animate several things at once, or even use that to animate a large area, without slowing down. This was something I'd never been able to do before."*

Although, as Hamada remembers, while the NEOGEO platform was a stable 2D powerhouse piece of hardware, the systems the Nazca team tested their work out on were far from it, and it led the newly formed team to take things into their own hands – with interesting results!

"With Metal Slug 1*, we had a NEOGEO test board with a load of 8 mega RAMs plugged in and, because we used all 32 mega, updating it took ages, but the hardware division at Nazca developed two prototype RAM boards and we could update them much quicker. After that, we used them exclusively, one for the beta version and one for the debug version, but they were only prototypes, so, if we overused them they'd catch fire. Once, Kui-chan was testing the game and it caught fire, and he jumped up and everyone shouted 'Are you alright?', but they meant the RAM board, not him!"*

"There's a lot of stopping and shooting in Meeher's stages, but the levels that I designed just keep on scrolling" – Kazuma Kujo

But, how was the NEOGEO's incredible 2D power tapped, and how were *Metal Slug*'s now iconic graphics and animation created? Kazuma Kujo remembers how Mr. Akio and his fellow designers set about their work.

"There was nothing special about the tools that Mr. Akio and the designers used to create the artwork. They used animation techniques to move and rotate things on the screen. So, in fact, it wasn't very high-tech at all, but a matter of skill on the part of the designers. Their passion to make it fun and surprising for the player, I think, drove them to create an enormous amount of movement patterns."

And not only did Akio and the *Metal Slug* design team show their quality in the animation, but they worked at an astonishing speed, too, especially considering that, at the beginning of Nazca's formation, the team only worked on the title part time, with their role as a porting house being their main operation for SNK. This is something that Kujo backs up:

"Our artists took quite a long time and worked very hard to make the graphic designs. However, we made the 2D animations for those graphics at a menacing speed. We needed a lot of energy to make them."

The beauty displayed in every aspect of *Metal Slug*'s art style – from its pieces of art-level stage backgrounds, through to its larger-than-life characters and machines, and on to its vivid and visually arresting animation and special effects – would be nothing without enjoyable gameplay mechanics.

From an early stage, the ex-Irem staffers working on *Metal Slug* had, subconsciously or not, decided to lean on their heritage at Irem as inspiration for their new titles. A small portion of the Nazca staff had followed SNK's instruction that they could make new titles for NEOGEO by building on their history with the closed game maker's golf games to make *Neo Turf Masters*. And it seemed only natural that, for the remaining team, which consisted of men that had spent their formative years in the games industry making vertically scrolling (*Air Duel*) and side-scrolling shoot 'em ups (*In the Hunt*), as well as run-and-gun games (*GunForce II*) and beat 'em ups (*Undercover Cops*), *Metal Slug* would fit into one of these genres.

But, as Kazuma Kujo recounts, the mechanics of *Metal Slug,* and even its genre were far from locked down, and, thanks to the meeting of minds between himself and fellow designer Meeher, the game actually defies traditional conventions as well.

"Meeher made a game called Undercover Cops *before working on* Geo Storm*, and I was mostly working on side-scrolling shooters. So, he created games where the screen would scroll and stop, scroll and stop. When it was decided that we would join forces and work on the same game, we agreed that it would be best to work in a way that wouldn't overlap."*

This led to a side-scrolling run-and-gun game that contained many staples of the shoot 'em up and beat 'em up genres. Thus *Metal Slug* has a penchant for switching between continuous scrolling and shooting, interspersed with levels and bosses where the screen is locked for a time, forcing the player to fight within a confined area against enemies with set movement patterns and attacks, adding a fluidity to its structure.

"Metal Slug*'s fundamental game mechanics were created together, but we split the level design so that we wouldn't step on each other's toes. You can tell which levels were designed by me and which were designed by Meeher by looking at the way the stage progresses. There's a lot of stopping and shooting in Meeher's stages, but the levels that I designed just keep on scrolling. By alternating the levels between his and mine, we were able to give the game variety in gameplay."*

And it's this point that can, arguably, be seen as one of the most important factors in *Metal Slug*'s wide appeal to gamers. While the game ended up definitely being more run-and-gun than any other genre, when you actually stop and start to parse it down, it becomes very evident that it was not just games like *In the Hunt* and *GunForce II* that influenced its conceptualisation, but titles like *Undercover Cops* and even *Air Duel*, too.

And, as we will now see, when *Metal Slug* first saw the light of day, it was not as gamers now remember it.

Metal Slug Zero

A year after beginning the development of *Metal Slug*, the Nazca team were on a roll, with a working demonstration version of the game ready to go on location test – which, at the time, was a standard part of the Japanese game production process. The location test was where game developers took their title to the arcade game centres and had members of the public and press play the game and provide feedback. In August 1995, Kujo, Hiyamuta, Akio, Meeher and the rest of the team presented *Metal Slug* in two separate locations.

The game was just as they had envisioned it: a retro-looking, side-scrolling shooter in which the player controlled the Metal Slug Super Vehicle-001, a powerful tank that was tasked with blasting through a series of enemies, both human and machine, over the course of six stages.

Yes, that's right. This version of the game, which has now become known as 'Metal Slug Zero', didn't have the player control the human character, Marco, at all (Marco and Tarma didn't even exist). The whole title and its action was built around tank-based movement and combat, just like *In the Hunt* where the player controlled a military vehicle. However, this time, instead of being in and under the water in a submarine, they were in a heavily armed and tracked tank on the ground.

Indeed, if one consults the small amount of press for the game prior to release – such as in the Amusement Machine Show 1995 sales brochure[4] and *Gamest* Vol. 151[5] – in the screenshots only the Super Vehicle-001 is shown. Other small differences to the finished game can be seen, too, such as grittier backgrounds, blue palette swaps of enemy soldiers for the POWs, and a secondary gold-coloured tank. That's because these screenshots were taken from 'Metal Slug Zero', a game where its original plot saw the player take control of Phil John, an engineer for the Regular Army, who takes control of the Metal Slug prototype when General Morden tries to take over the world's major cities in a global coup. In this version of the game, the Player 2 character is a woman called Michiki Nakajima, and she's the one who controls the gold tank.

Right from the start, the vision for *Metal Slug* had been to create a retro-themed game that had a war movie quality about it; one which had explosive tank-based action, but a quite serious, sombre tone. And, in August 1995, that's what the team showed off in Osaka to Japanese press magazines, such as *Gamest* and *Famitsu*, as well as NEOGEO fans and the SNK management.

What happened next would radically alter the course of video game history. That's because, while *Gamest* and *Famitsu* liked the game, as well as the publication *GameFan*, which confidently stated that '*Metal Slug* is gonna ROCK!' and that the gamer should 'imagine taking control of this cool little tank and just… well, ANNIHILATING everything in sight', 'Metal Slug Zero' got a poor reception, not just from NEOGEO fans testing the game, but SNK management also.

"We held two location tests, both with different control schemes, but neither of them went well. Most people were giving up on the third stage or thereabouts," confirms Hamada.

The game was criticised for being too slow, thanks to being stuck in a tank, and lacked the boisterous spirit that other NEOGEO games had. Kazuma Kujo remembers the location test criticism well:

"Originally, the combat vehicle was the only character you controlled. However, when we did location tests, we did not get a good response from customers playing. The original plan was to play as a tank [as opposed to a soldier who would occasionally jump into a tank].[6]"

"At the time, the game's quirks or uniqueness was that the player could play as a tank. Mr. Akio was especially protective about that. But, as the level designer, I found it challenging to create a game around trying to move a big tank around the screen. It's unique, for sure, but the movements became too bulky and awkward for an action/shooting game. So, when the location tests came back unfavourably, I proposed we switch the main character to a soldier, but it was not accepted easily by the team."

"I made the suggestion and the room went quiet" – Kazuma Kujo

Indeed, for the Nazca Metal Slug team this was an enormous blow, and especially for lead planner Kazuma Kujo. The team's big vision for *Metal Slug* had been approved of by the gaming press but, crucially, for the company that was funding them and its fans, the game was not well received at all. Very quickly, uncertainty about the project spread among both the game makers and SNK's executive managers, with an emergency meeting called to decide upon a future course of action.

"Well, obviously the main character had to be recreated, from being a tank to a soldier" – Kazuma Kujo

Changes would have to be made to salvage the project and, as Kazuma Kujo remembers, the surgery would be extreme: they would abandon the Super Vehicle-001 as the game's playable character and replace it with a faster and more characterful human protagonist, one that could, for small segments of the game, jump into and out of the tank instead[7].

"I made the suggestion in a big meeting with SNK executive managers and the room went quiet," recounts Kujo. *"I didn't really think that they would go for it, but changes had to be made to the game in response to the poor ratings it got at the location test. And, even after an executive decision was made to change the main character, there was a lot of uneasiness in the studio. I do think that the change allowed for more humour in the game, but the team didn't feel that way for quite some time after the decision was made."*

Hamada remembers the opening of the original *Metal Slug*'s third stage fondly:

"The pre-human version of Metal Slug's third stage had a great first half too; the tank was driving through this snow-covered forest, and there were tree trunks in the foreground and background with soldiers trying to creep around them and attack. That all got cut, and we ended up with the player jumping up a series of snowy ledges. It's a shame; I really liked that part.

"I wish the original version still existed," adds Okui with a little regret.

Plan B is GO!

That change would come at a high cost. Originally set for an 18-month development cycle, *Metal Slug* would now take just over two years to make, with an extra six months added due to the major upheaval that took place after the 'Metal Slug Zero' location test. The team had just six months to dramatically alter and redesign a game that, from day one, had been built with a very specific vision. Which is why far more than just changing the player character from the Super Vehicle-001 to a human soldier had to be accomplished.

"Well, obviously the main character had to be recreated from being a tank to a soldier," Kujo recalls. *"We used the same backgrounds, but the objects and enemies within the level had to be adjusted to match the new character[8]. I believe there was one level that we had to do a complete revamp – the snow stage[9], where the character jumps and climbs up the cliff – that level had to be recreated from scratch. It was one of Meeher's levels."*

Changes to 'Metal Slug Zero' extended right down to the most fundamental parts of the game, such as how enemy bullets flew and interacted with the player, what freed POWs would do for the player (originally they ran next to the tank and threw grenades or climbed on top of it and fired a bazooka), what obstacles were placed in the gamer's way, with electric fences being introduced, for example, and how each level's challenge escalated. After all, a tank and a human soldier have very different levels of vulnerability, so, in order to maintain the escalating level of tension the team wanted, serious changes needed to be made. These even extended to lengthening each level due to the faster pace of the human player character compared with the tank (such as stage five, where the player gets held up by two walls), and with limited game development time, at lightning speed, too.

"In terms of the quality of the game and longevity of the gameplay, I think this was better," Kujo adds. *"It also opened up possibilities in level design and scenery. Needless to say, there was no acknowledgement by the team that it was the right decision."*

While no member of the team has, to date, clearly admitted as much, all evidence and commentary suggests that this six months was one of the most stressful and conflicted times that any of them had ever experienced in the video game industry. Indeed, as Hamada reflects, the working hours were extreme and the quality of life far from ideal.

"I got into the office and was looking for him, and found him in the toilet, asleep on the floor" – Takeshi Okui

"Near the end of the project, we were working long hours and sleeping at the office. We'd finish up around 2 or 3am, say goodnight, then get into our sleeping bags and go to sleep, waking up the next morning before 9am to start again. Was it an ideal work/life balance? Probably not!"

Okui also remembers the effect the development of *Metal Slug* had on Andoh Kenji: *"One time I got out of the elevator and he was asleep in the elevator hall. Another time, I got into the office and was looking for him and found him, in the toilet, asleep on the floor."*

The *Metal Slug* project was now being radically re-engineered and at a speed that was taking its toll on the wellbeing of the team. And, while before there had been a relatively clear vision of what they were looking to achieve, now conflict and uncertainty ran through the studio. The *Metal Slug* project was stuck in the trenches, its life threatened, and with no clear view of the way out and to victory.

A new world order

The story of the reborn *Metal Slug* would be a key light in the darkness of its final months of development. Set in 2028, the plot of the game paints a picture of the world where two military factions are struggling for power on a global battlefield: the Rebellion and the Regular Army.

The Regular Army is a NATO-style force run by various nations around the world to keep peace, while the Rebellion is made up of a series of militant groups that range from splinter cells and terrorists to roving and independent militant bands.

Despite the Regular Army being well funded and equipped, corruption is rife within its structure and, because of this, it has been left weakened, despite an appearance to the contrary. Intelligence reports begin to fail because of a breakdown in command and, as such, terrorist attacks increase, including one particularly deadly one in New York's Central Park, which kills the son of the Vice Admiral of the Regular Army, Donald Morden.

Traumatised, Morden goes rogue and defects to the Rebellion in order to stage a coup and take over the world's control. Becoming General Morden, he now unifies the Rebellion forces and launches a massive global attack on the Regular Army that nearly wipes them from the face of the Earth. Chaos proceeds to reign with the world order's stability broken amid countless acts of bloodshed.

"It's not pride, but rather regret that I couldn't be there to finish the game off" – Takeshi Okui

Immediately, the remaining Regular Army leaders plan a counter-attack, but, with diminished forces, they need a new weapon in the war against Morden and the Rebellion. As a result, a new form of advanced tank is commissioned and designated the Super Vehicle-001, to be used by the Regular Army's commandos.

Many of these tanks are captured by the Rebellion and used against the Regular Army, leaving it hanging by a thread and in a state of disarray. Seeing that the last remnant of the only force on Earth that can restore stability and topple General Morden is about to be extinguished for good, 1st Lieutenant Marco Rossi of the Regular Army's Peregrine Falcons special forces unit takes things into his own hands.

Uniting the Regular Army's small remaining forces, Rossi and fellow Lieutenant, Tarma Roving, launch an operation to reclaim the Super Vehicle-001 tanks and topple Morden. After much fighting, they achieve their aim, with the General apprehended and tried for war crimes, and both Lieutenants celebrated as heroes.

The *Metal Slug* team had always wanted to create a game that felt like you were playing through a movie and, as the clock ticked down towards its release, this epic global narrative aided the team in keeping control of a project that was, in many other aspects, changing dramatically. The question was, could the team hold on to that original epic dream and get the game finished while remaining sane?

Exits and excitement

Despite the conflict, pain and uncertainty raised by the infamous location test, the plan was now for the team to keep their heads down and fight towards a new *Metal Slug*. One that had a lighter, more comedic tone, as well as faster core gameplay, thanks to some characterful new human protagonists[10], with new backgrounds, power-ups, NPCs, enemies and obstacles created to mix things up.

Unfortunately, it was directly after the infamous location tests, and during a time where there was serious uneasiness towards the entire *Metal Slug* project from SNK's executive management, that the new studio experienced its first casualty.

Takeshi Okui, one of the game's key designers, left the company suddenly to go and take up a position at Japanese game studio Square, where he would later be credited on 1997's *Final Fantasy VII* as a Background Designer.

Why Okui left Nazca for Square remains unclear, although the latter's prestige must have played a part in his decision. But, what is clear is that Okui left Nazca in 1995 long before the rebooted game ever saw the light of day in 1996. Nazca was a man down.

"It's not pride, but rather regret that I couldn't be there to finish the game off," reflects Okui.

Mission complete!

Despite the turmoil of six months of radical redesign, intra-team conflict, and team members jumping ship months before the game was released, *Metal Slug* was eventually completed and, to the delight of SNK fans the world over, released in the arcades on NEOGEO MVS hardware on 18 April 1996 in the US, and in Japan the next day. The game then got its NEOGEO AES debut in the US, and Japan just over a month later, hitting the home console system on 24 May, 1996[11], before proceeding to land on the NEOGEO CD on 5 July, 1996.

The game was lauded by video game critics, with publications like *GamePro* calling *Metal Slug* "A soldier-slamming, side-scrolling, tour de force". Gamers the world over were blown away by a title that not just delivered what 'Metal Slug Zero' had set out to deliver – an epic retro-themed game that made you feel part of a Hollywood war movie – but also some of the most addictive gameplay, laugh-out-loud humour, and jaw-dropping animation ever seen. However, the game's true popularity would be best demonstrated not by the words of reviewers or the thoughts of gamers but, interestingly, by one business deal made by the then President of SNK Europe.

To follow that story, we need to rewind the clock back from *Metal Slug*'s triumphant release in 1996, back to 1988, back to a time where Nazca didn't exist and its staff were still working at Irem.

Kazuhiro Takeshita joined SNK back in 1988 and, by the time *Metal Slug* was about to be released in 1996, he had risen to the prestigious position of President of SNK Europe, beginning his role in 1994. Takeshita hadn't originally wanted to join the video game industry, even though he had spent a good deal of time playing arcade games in his youth.

"At the time, Famicom was coming to the market, and I bought a Famicom, but what I really loved were the arcade games," Takeshita recounts. *"I played a lot of* Sasuke *and was very impressed. The developer's name was very strange, Shin Nihon Kikaku, which later became SNK. It was a coincidence that I would end up working for SNK. I never dreamt that I would join this company later in life."*

Takeshita's reasons for not looking at the video game industry as a potential job destination also seemed well founded to him at the time.

"To be honest, I wasn't interested in joining the industry, because the gaming industry – at the time – did not have a very good reputation. People talk about the three Ks of the industry: kitanai (dirty), kowai (scary) and kurai (dark). Children were advised not to go to arcades because there were a lot of bad people and gangs hanging out at arcades."

Despite this, Takeshita was soon to find himself pointed towards SNK by pure chance, when a random encounter with one specific magazine changed the course of his life forever.

"I'm not a spiritual guy, but I felt this was a sign or destiny. At the time, I was really lost and happened to grab a recruitment magazine, flipping through the pages, when the position at SNK jumped up at me and really piqued my interest. Because a gaming company was looking for a salesman with opportunities to go abroad for international sales, which is exactly what I was looking to do. So I jumped at the opportunity."

Takeshita fitted the company perfectly, and very soon became a key consultant and employee of none other that the founder of SNK, Eikichi Kawasaki. Kazuhiro explains what the culture was like at the famous video game hardware and software maker:

"SNK, at the time, was very chaotic. Mr. Kawasaki, the owner and founder of the company, used to be a boxer. The employees were scared of him because he would shout when he was angry or upset. At the same time, he was respected by everyone as well, because he had a keen instinct about the business and we were attracted to him, even when he was shouting at us."

Takeshita would work with Kawasaki over the following years before becoming President of SNK Europe in 1994, helping to promote and sell NEOGEO hardware and software throughout the region. So, when this very interesting, but not particularly SNK-style title called *Metal Slug* suddenly appeared in 1996, offering a genuinely new experience for many gamers, Kazuhiro distinctly remembers his reaction, and just how successful it was:

"Metal Slug *was the first game where I experienced a hit game in Europe. I presented it to my territory and sold more than 5,000 copies within a month or so. And that was my best record for sales. Of course, I sold* THE KING OF FIGHTERS *and other titles in the range of 2,000 to 3,000 but never as much as 5,000. As a first target, that was a huge record for me."*

As to why Takeshita thought *Metal Slug* sold such incredible numbers, he is crystal clear in his thoughts:

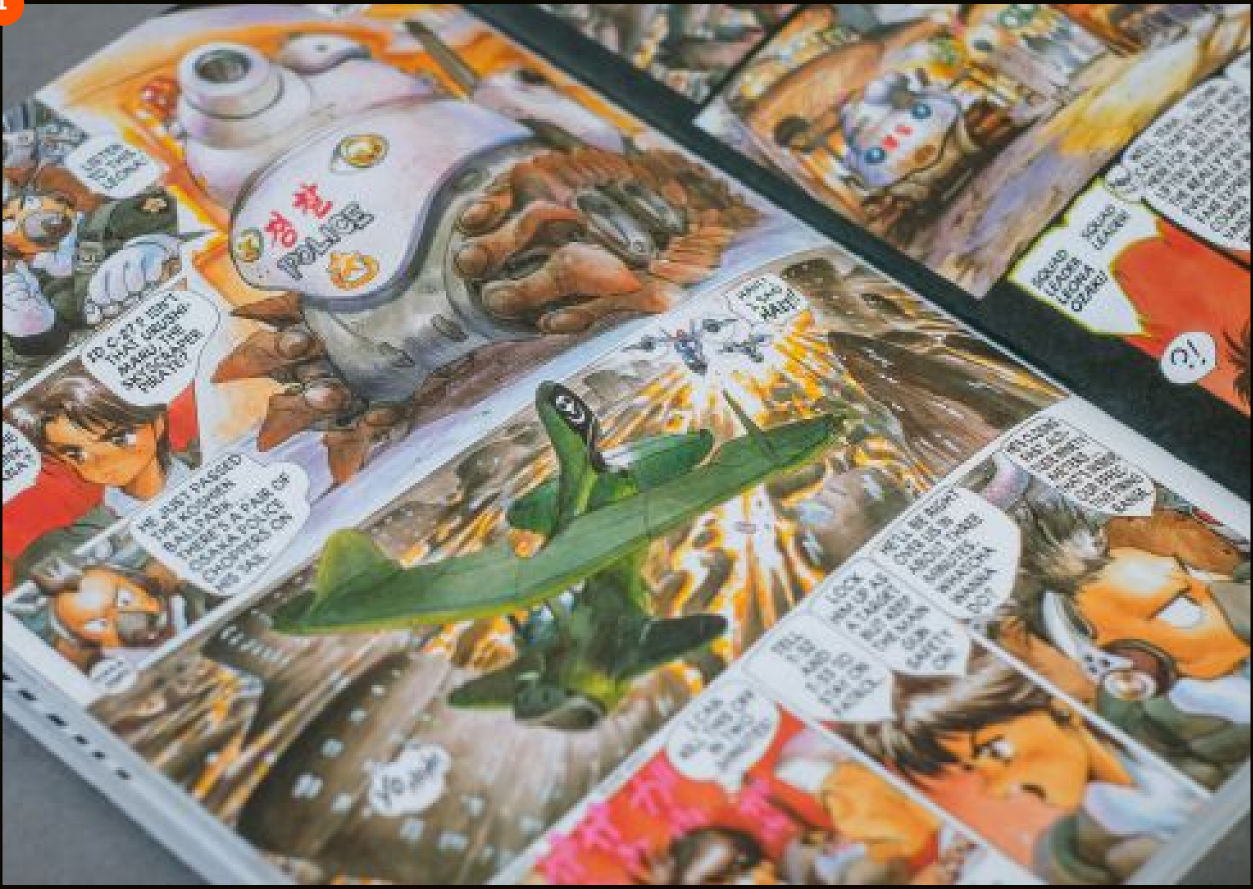
"Because the character animation and graphics were really nice. We had never seen this type of animation. It had a hand-crafted taste. I really liked it."

"Metal Slug was the first game where I experienced a hit game in Europe. I presented it to my territory and sold more than 5,000 copies within a month or so" – Kazuhiro Takeshita

Not only had *Metal Slug* defied the odds, winning over the famously tough-to-please video game industry critics while enthralling passionate gamers, but it had also set sales records; the President of SNK Europe, Mr. Takeshita, had never seen a bigger success before or experienced one since. In every sense of the word, the game had been a hit and, for SNK, it would go on to be one of the titles that the brand and its NEOGEO hardware would be most closely associated with.

After all, following the success of the original, they were hardly going to stop making more Metal Slug games now were they?

1



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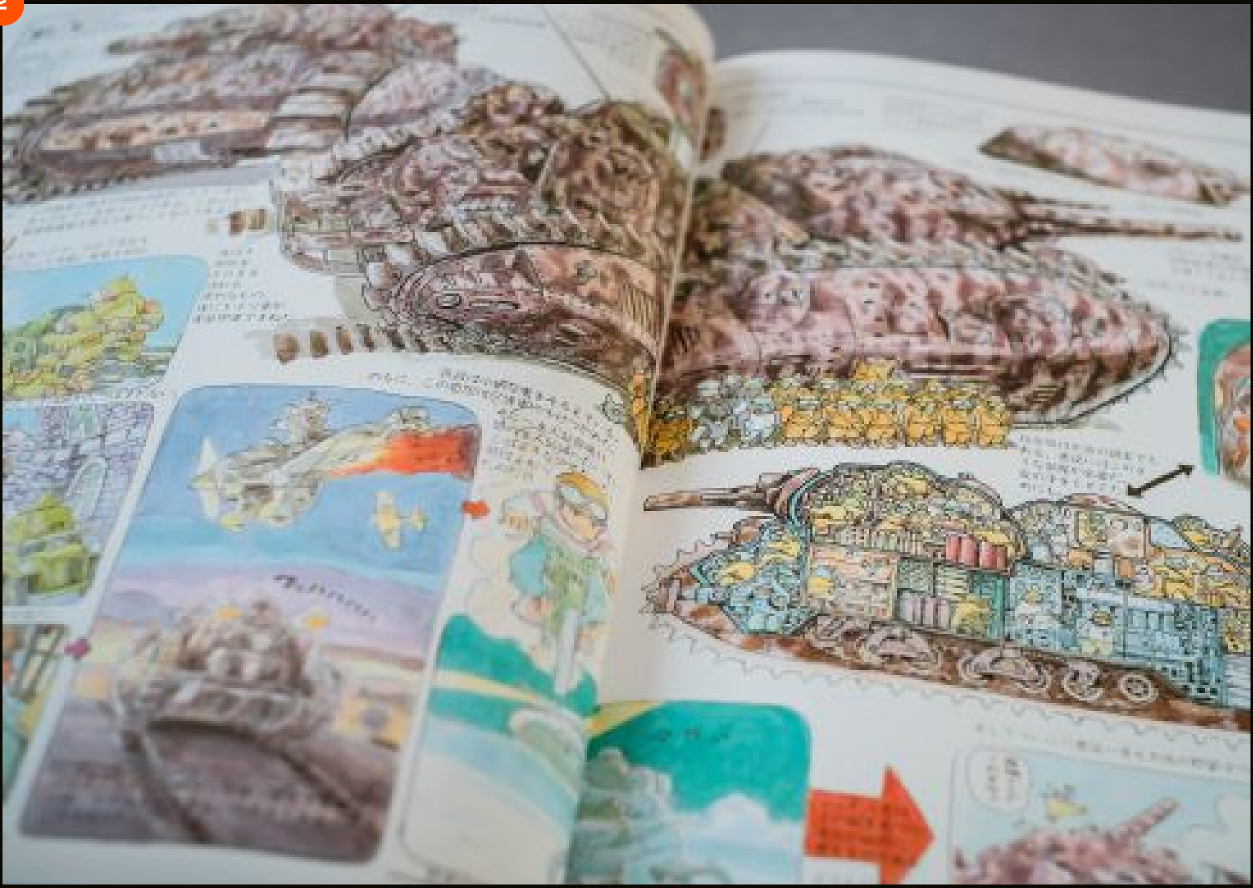
Originally published in 1986, *Dominion* (ドミニオン) is a Japanese manga written and illustrated by Masamune Shirow. Gamers couldn't help but spot similarities between the titular Metal Slug tank, the Super Vehicle-001, and the Bonaparte tank.

2



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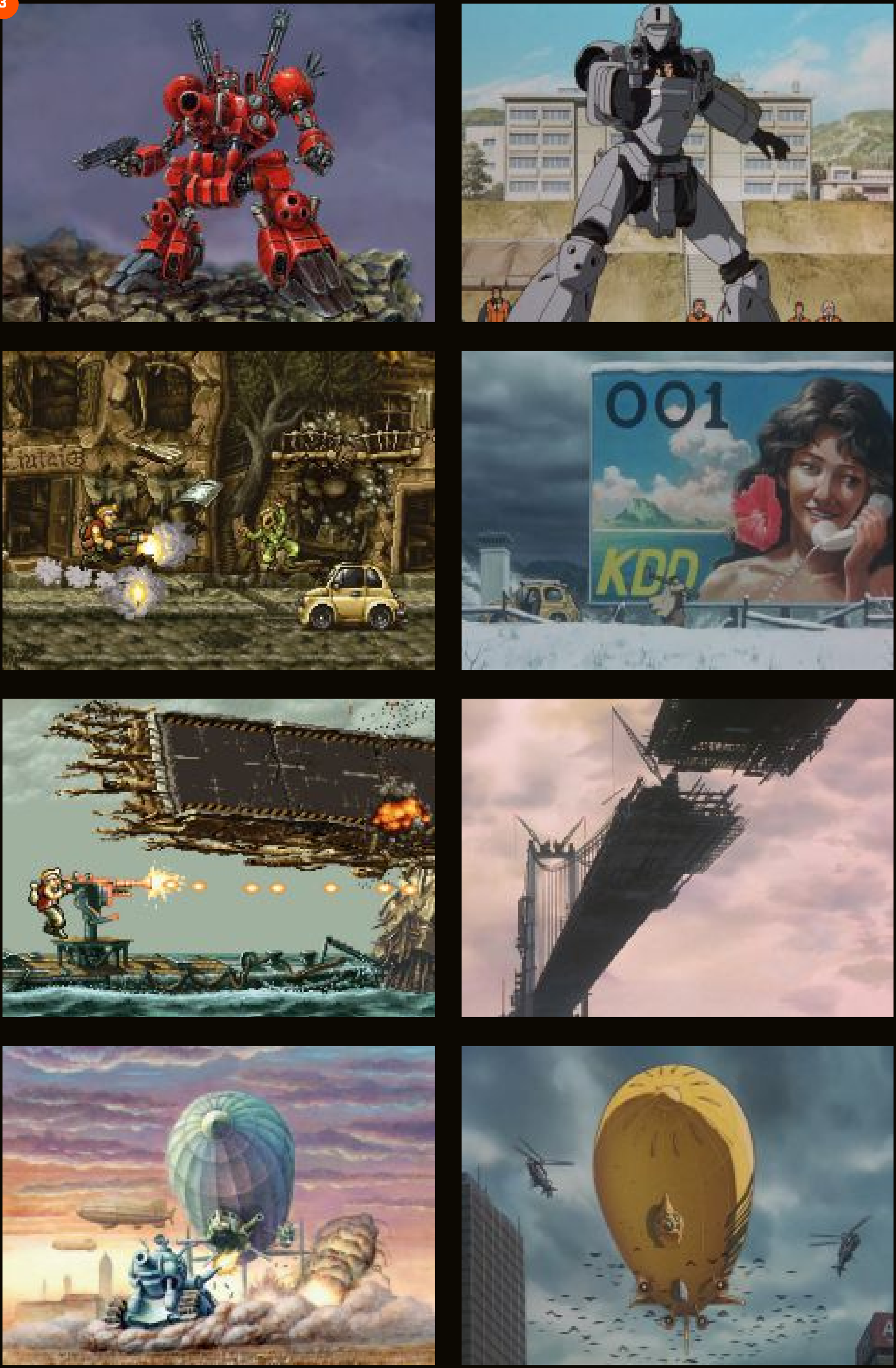
First published in 1984, Hayao Miyazaki's *Daydream Data Notes* is a collection of drawings by well-known Japanese manga artist, Miyazaki. It contains a series of very detailed military tanks, boats and airplanes and was a rich source of inspiration for the *Metal Slug* developers.

3



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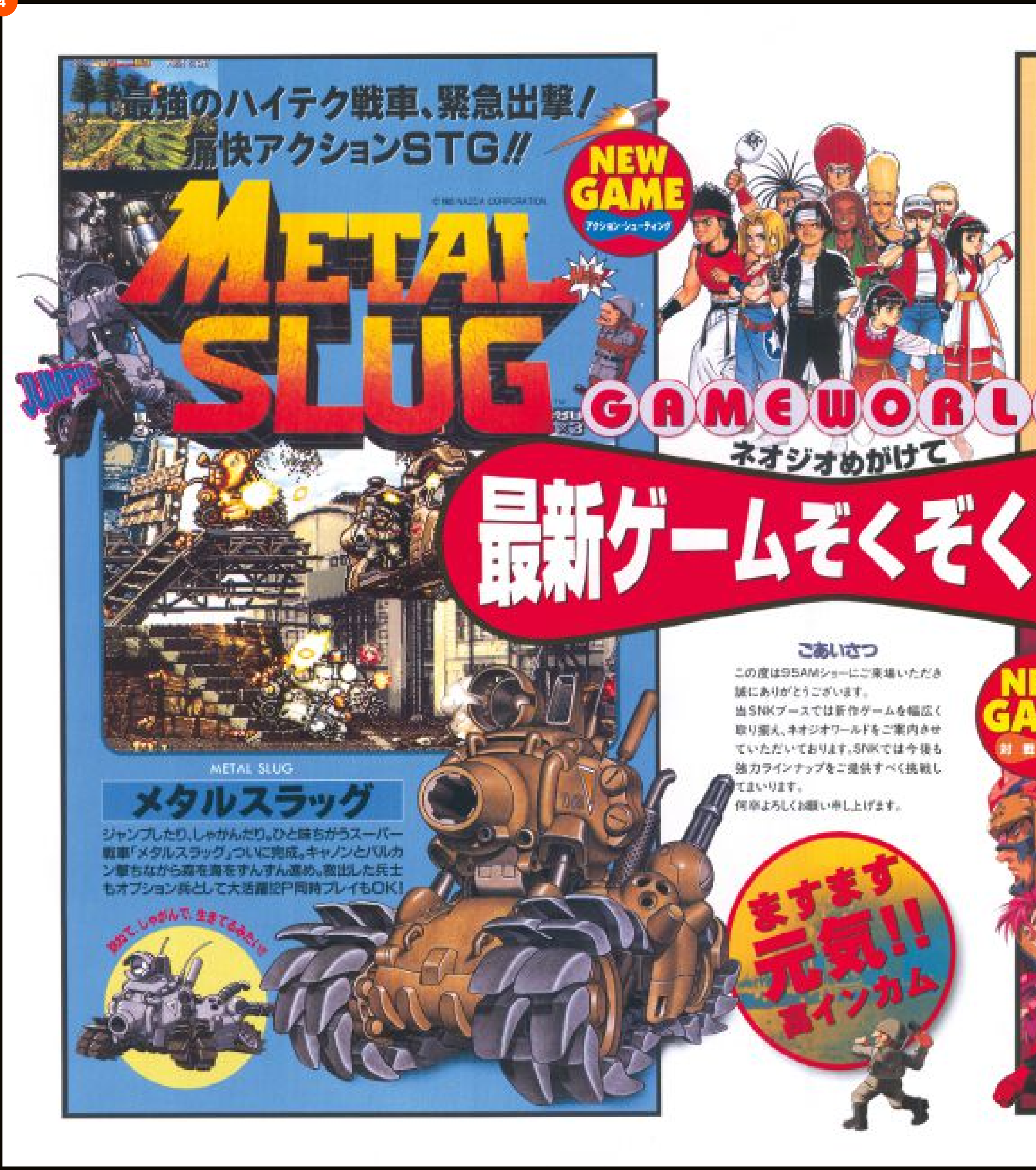
The left column shows a selection of scenes from *Metal Slug*, and in the right column is a series of stills from anime *Patlabor: The Movie* [機動警察パトレイバー *the Movie*] which was released in 1989 and directed by Mamoru Oshii.

4


最強のハイテク戦車、緊急出撃！
痛快アクションSTG!!
NEW GAME
アクション・シューティング
METAL SLUG
JUMP!!
GAMEWORL
ネオジオめがけて
最新ゲームぞくぞく
跳ねて、しゃがんで、生きてるみたい!!
ますます元気!!
高インカム

METAL SLUG

メタルスラッグ

ジャンプしたり、しゃがんだり。ひと味ちがうスーパー戦車「メタルスラッグ」ついに完成。キャノンとバルカン撃ちながら森を海をずんずん進め。救出した兵士もオプション兵として大活躍!2P同時プレイもOK!

ごあいさつ

この度は95AMショーにご来場いただき誠にありがとうございます。
当SNKブースでは新作ゲームを幅広く取り揃え、ネオジオワールドをご案内させていただいております。SNKでは今後も強力ラインナップをご提供すべく挑戦してまいります。
何卒よろしくお願い申し上げます。

This sales brochure, from the Amusement Machine Show in 1995, clearly previews *Metal Slug* without Marco or Tarma, where you control the SV-001. The images also reveal that the POWs were indeed originally soldiers and that the two playable tanks were the silver SV-001 and the gold SV-002.

STAKES WINNER
D
NEW GAME
競馬アクション
ジョッキーとなって、
発進!
EW
AME
最終格闘兵器、ついに発動!!
超人学園ゴウカイザー

STAKES WINNER

ステークスウィナー

ネオジオから異色競馬アクションが元気に出走！騎手になって名馬を乗りこなし、実在のダービーに挑戦しよう。

VOLTAGE FIGHTER GOWCAIZER

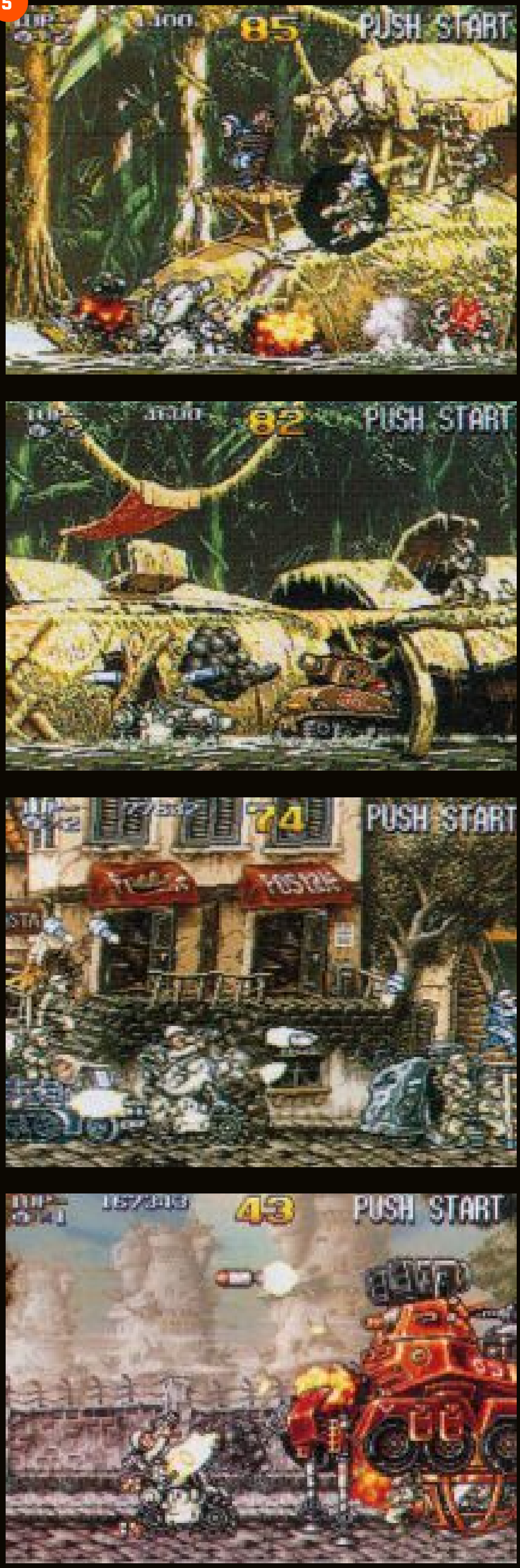
超人学園ゴウカイザー

大張正己氏デザインの超個性的な変身キャラ達が闘う豪快格闘アクションゲーム。必殺技トレースシステム搭載、2P対戦プレイ可能。

©1995 TECHNOS JAPAN CORP.

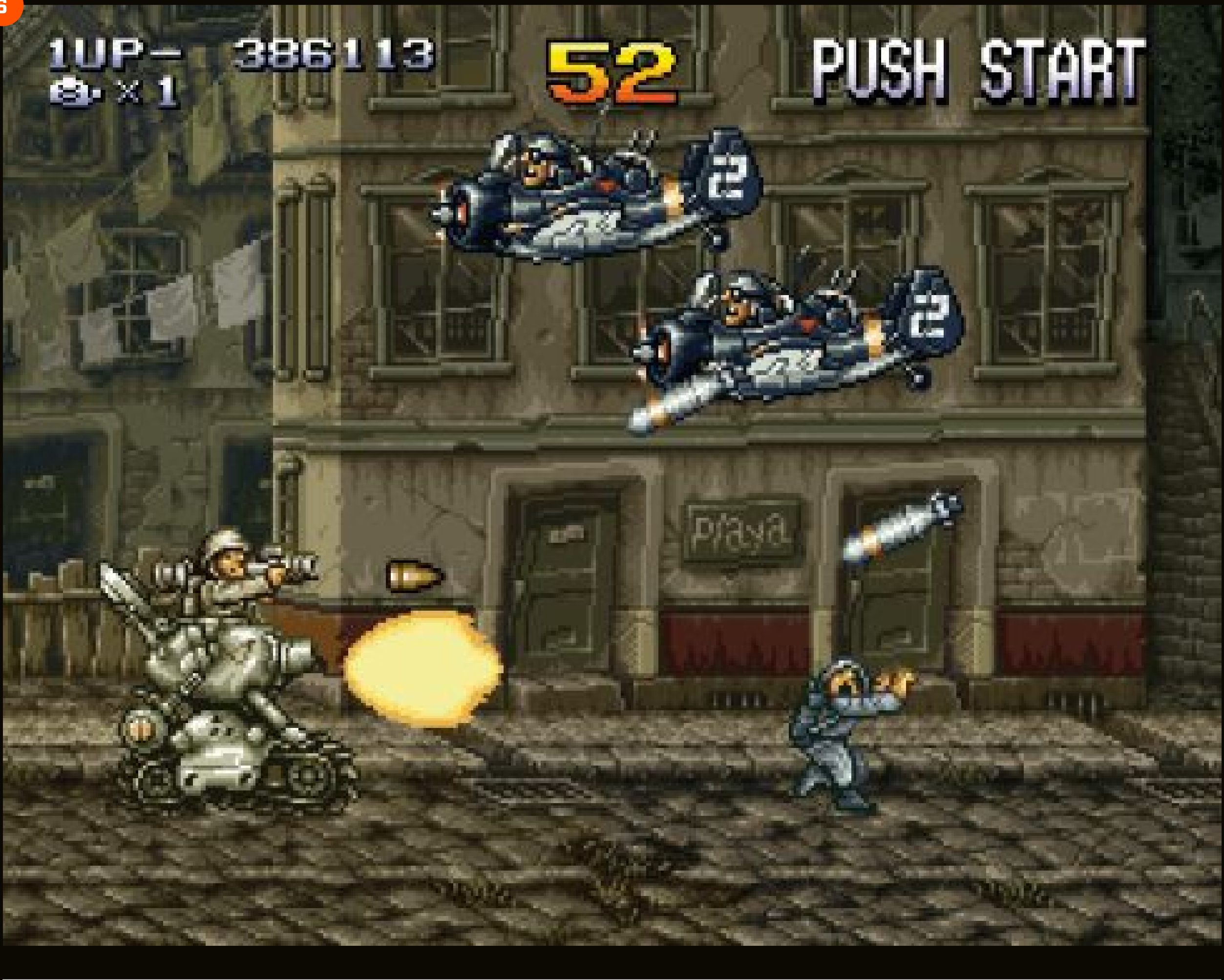
©ARC SYSTEM WORKS

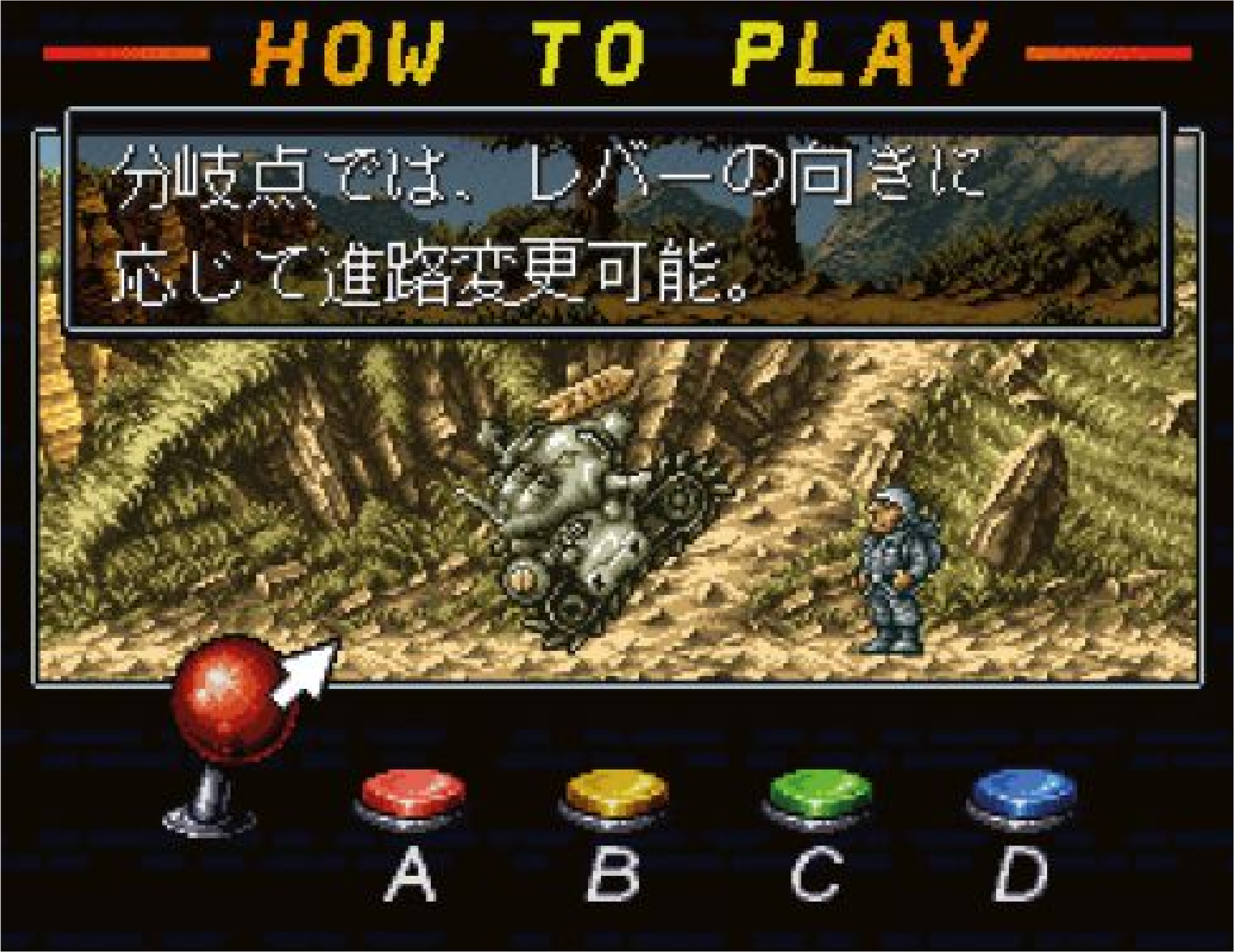
5


PUSH START
85
82
74
43

Various scanned screenshots used in an issue of *Gamest* Vol. 151 from 1995 that not only show many examples of the playable tank, but also the old Mission 1, before it was redesigned.

6


1UP– 386113
× 1
52
PUSH START
2
2
Playa

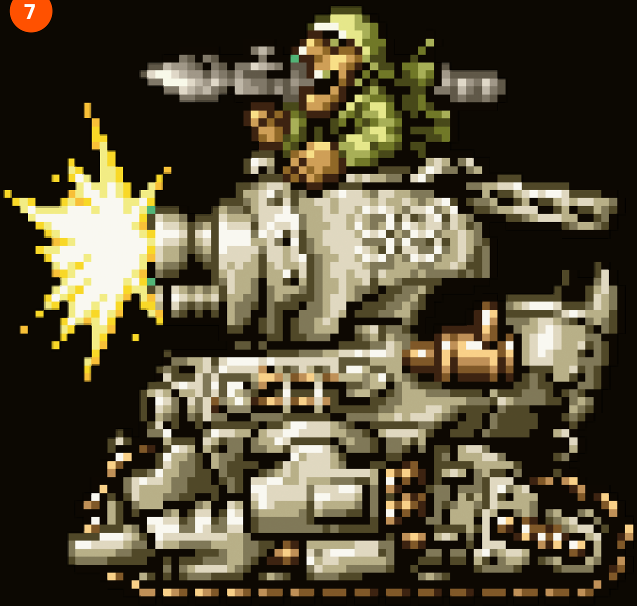

HOW TO PLAY
A
B
C
D

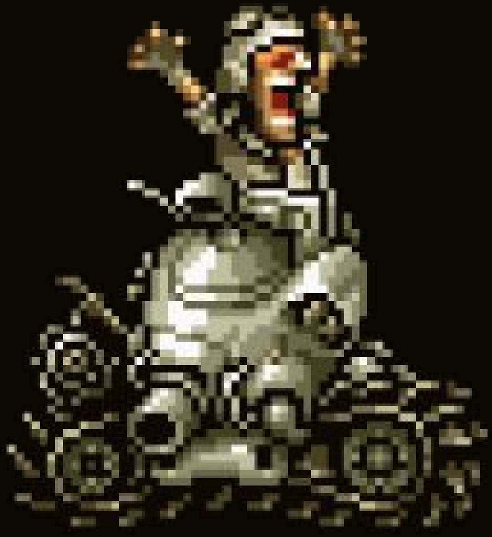
分岐点では、レバーの向きに
応じて進路変更可能。

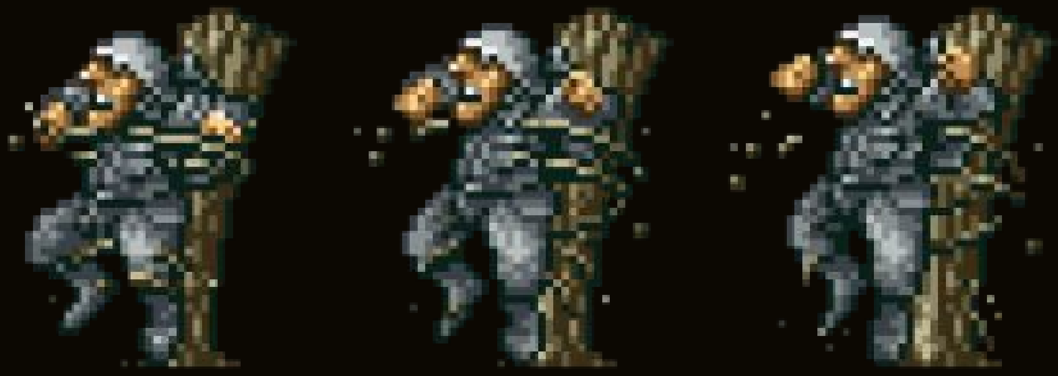
Left: Mock-ups using unused graphics found in the original ROM of *Metal Slug*. The top image shows the playable tank and solider POWs as was in 'Metal Slug Zero'. The bottom image gives instructions for how to control the SV-001 – specifically 分岐点では、レバーの向きに応じて進路変更可能。which translates as: "At a junction, move the lever to change the direction of the route. A friendly soldier gives the instructions".

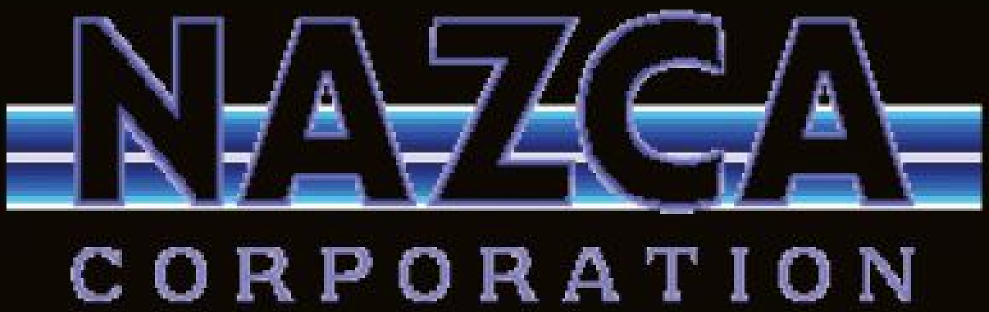
Below: A series of sprites and graphics discovered in the ROM of *Metal Slug*. These include a KT-21 tank, SV-001 complete with a driver, various soldier POW sprites and a number of Nazca logo variations. Other graphics can be found, such as variations of the weapon icons and the energy bar, and NPCs that didn't make the final game.

7



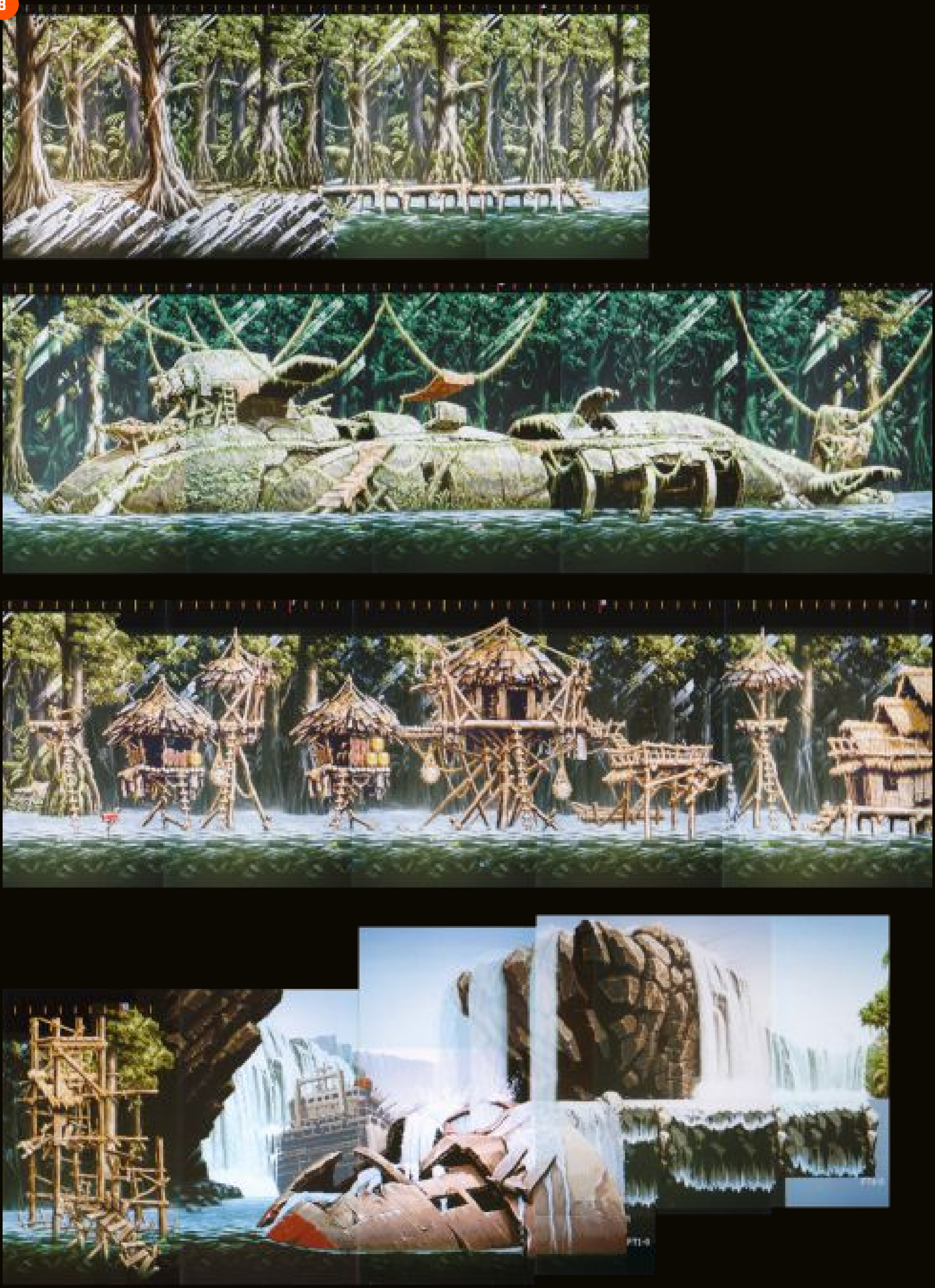






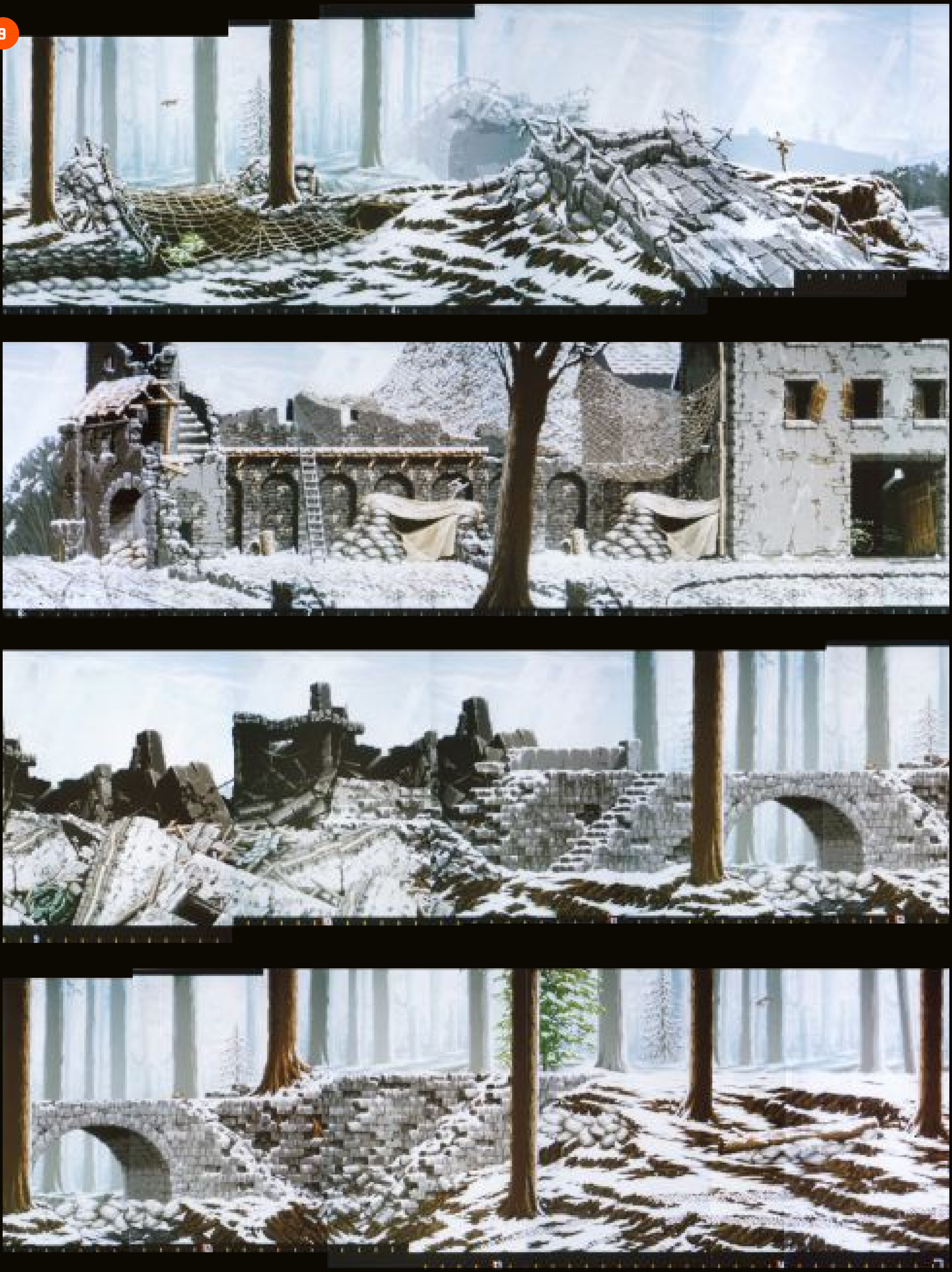
Below is the original Mission 1 level map, taken from 'Metal Slug Zero'. This level was originally shorter due to the slow-moving tank. Another noticeable difference is that the majority of the level is in water, which was changed to land when Marco and Tarma were introduced. The setting also seems to have switched from the overt Vietnam-style jungle.

8



For 'Metal Slug Zero', Mission 3 was originally a horizontal level design as shown below. When Marco and Tarma were introduced, this was completely redesigned to the vertical level we recognise from the final game. Coder Shinichi Hamada remembers "tree trunks in the foreground and background, with soldiers trying to creep round them and attack".

9



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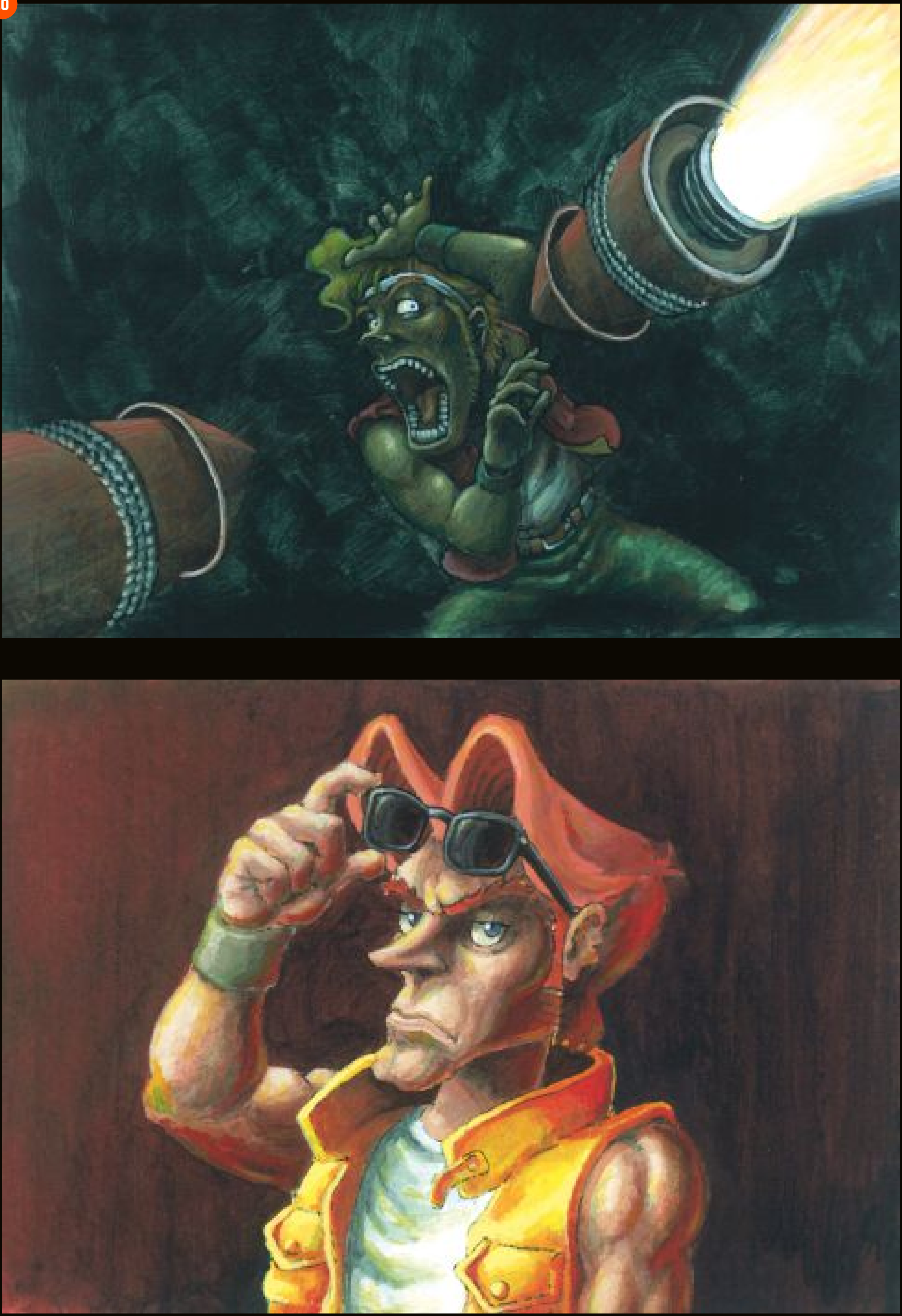
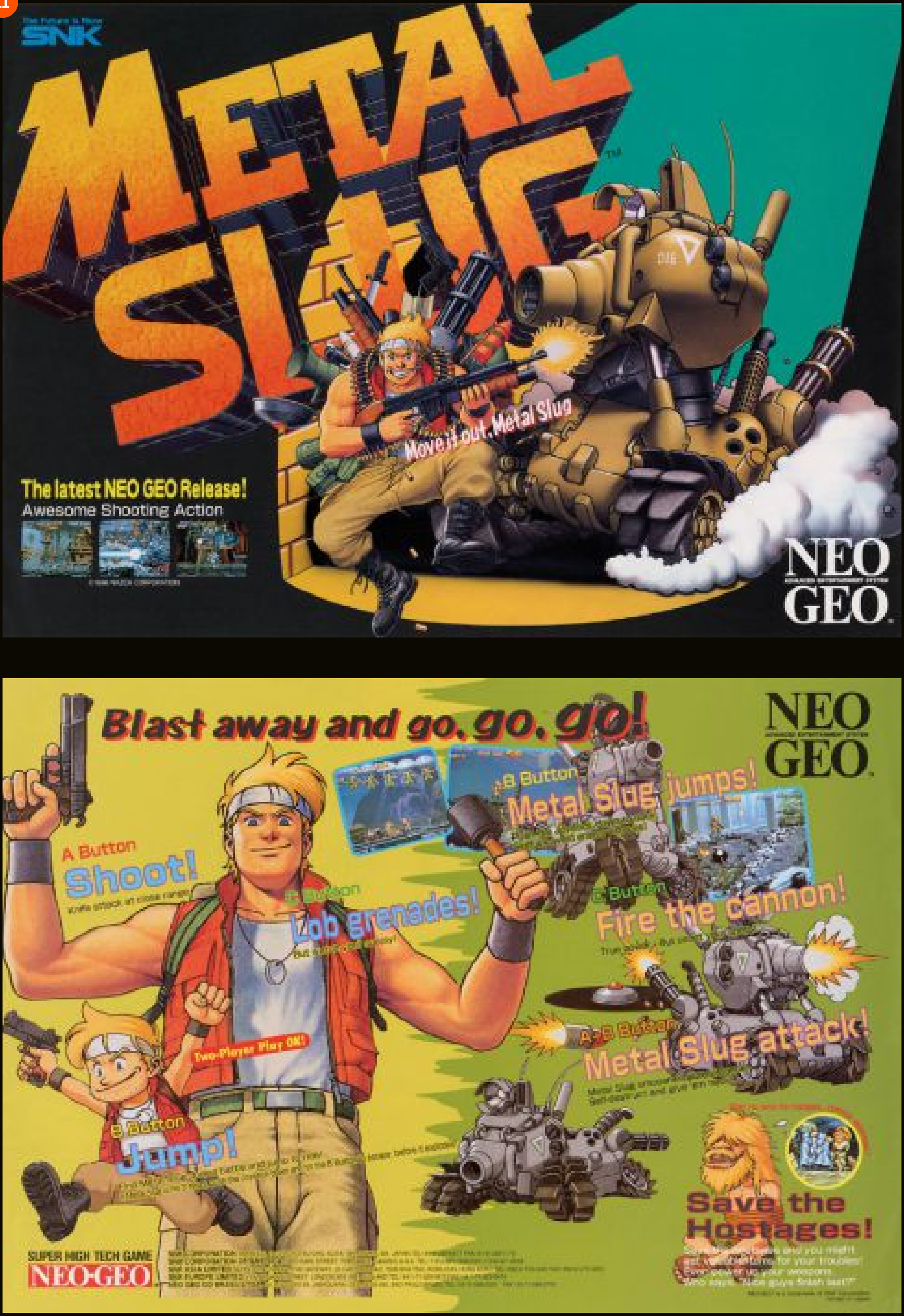


Concept artwork showing new playable characters Marco Rossi (top) and Tarma Roving (below). Both are members of the Peregrine Falcons Squad, and good friends.

11


SNK
METAL SLUG
Move it out, Metal Slug
The latest NEO GEO Release!
Awesome Shooting Action
NEO GEO
Blast away and go, go, go!
NEO GEO
A Button
Shoot!
C Button
Lob grenades!
B Button
Metal Slug jumps!
C Button
Fire the cannon!
Two-Player Play OK!
A+B Button
Metal Slug attack!
B Button
Jump!
Save the Hostages!
SUPER HIGH TECH GAME
NEO·GEO

A flyer celebrating the release of *Metal Slug* for the NEOGEO. The artwork not only shows the SV-001 tank, but also Marco is now introduced along with the 'hairy' POWs we recognise from the final game.

Man down

Metal Slug had been a massive success for Nazca and, naturally, thoughts within SNK immediately turned towards a sequel. Unfortunately, before even the most basic production gears could begin turning, in the aftermath of *Metal Slug*'s release in 1996, Kazuma Kujo – one of the key figures in making the game a reality – suddenly decided to leave the company.

"I was seriously contemplating leaving the game industry," Kujo admits. However, the exact reasons why he suddenly left Nazca remain a mystery. Had the troubled experience over the last year of development on *Metal Slug* killed his love for making games? Or, with the project complete, did he actually just want a change of scene?

Whatever the reasons for Kujo leaving, what we do know is that, when he left, he didn't have another role lined up.

"I was thinking about leaving the industry and, initially, I wasn't doing any work," he admits. *"But then I had various people ask me to help sell game concepts to publishers. So I found myself working as a freelance game planner. I was doing that for ten months."*

How did the original *Metal Slug* team at Nazca feel about Kujo leaving? "*Everyone was surprised. Meeher was upset,*" confirms Kujo. This is understandable when you consider that many of the *Metal Slug* team had been working together, not just for their two years at Nazca, but actually for closer to ten, thanks to their shared experiences at Irem.

Along with Meeher, Kazuma Kujo had been a lead planner on *Metal Slug* and, while his eventual time out of the industry would be brief (Kujo would go on to join Irem's rebooted games division in 1997), his sudden departure was felt massively at a studio that, despite all obstacles, had just released one of the greatest video games of all time.

"I was seriously contemplating leaving the game industry" – Kazuma Kujo

And, simply put, how on Earth do you follow up one of the greatest video games ever made? Especially when not just one of your original team has packed his bags and moved on to pastures new, but multiple members, including one that was absolutely fundamental in both the game's planning, design and execution, as well as Nazca's entire formation.

Dialling it up to eleven

That answer would come from long-time friend of Kujo and fellow *Metal Slug* planner, Meeher, who proceeded to pick up the reins of the Metal Slug franchise and spearhead the production of *Metal Slug 2*. And, as we now discover, Meeher and the rest of the team's solution to following up *Metal Slug* was to dial things up to eleven.

"The basic concept was to build on the controls from the previous game and make a scaled-up sequel," says Meeher. *"We wanted players to be able to look at the screen and tell right away that this was the sequel, so we decided off the bat to create a lot of novel, unexpected enemies. As the stages progress, there are a lot of surprises waiting for players, too. We wanted to increase the scale of the world of Metal Slug from the last game."*

And, for any gamer that has played through *Metal Slug* and then gone on to boot up its sequel, these differences are immediately apparent, with *Metal Slug 2* sacrificing even more of the series' gritty, war-movie roots to the gods of laugh-out-loud zaniness. While the fundamental game mechanics remain the same, every other aspect is either expanded or taken to a more extreme level.

"We had an idea for a humongous vehicle that would take up the entire screen, the 'Dino Slug'" – Meeher

From the selection of playable characters, which rises to four with Marco, Eri, Tarma and Fio, to new and outrageous weapons such as the Laser Gun and Fire Bomb, and on to crazy new vehicles, including the Camel Slug, Slugnoid and Slug Flyer, *Metal Slug 2* drips with crazy and fun extra content. And, what's more, tapping into those arcade origins once again, you get much of this new content right out of the gate, too.

"We had many ideas for the vehicles, from serious ones to jokes," explains Meeher, while talking about how the team went about conceptualising new Slug vehicles. *"One that stuck around to the very end and almost made it in was the 'Desk Slug'. We planned to use it in a stage that took place inside an office building, but when the stage itself got nixed, so too did the Desk Slug. We also had an idea for a humongous vehicle that would take up the entire screen, the 'Dino Slug'."*

Other new additions to the Metal Slug formula included new enemies, with Ancient Egyptian-style mummies and tentacled, laser gun-wielding aliens among the most memorable, as well as crazy player character transformations. For example, if in one game life the player picks up too many food items, they suddenly transform into an obese version of their chosen character, with the classic Metal Slug announcer shouting "Woah, big!".

While in this obese state, the player's movement speed is reduced, and their melee and ranged attack weapons are altered, too. The knife is changed to a fork, grenades into fatter bombs, and bullets from many guns are now supersized as well.

Another neat character transformation can also be undertaken in *Metal Slug 2*'s second mission. If the player's character is hit by one of the mummy enemies' purple attacks (or by a purple potion dropped by bats) then they too are turned into a mummy. In this state, once more the player's movement speed is reduced and any special weapon they may be carrying is immediately lost, with only a pistol fireable until an antidote potion is picked up or the player loses a life.

As anyone who has played *Metal Slug 2* will testify, these transformations are sudden and very funny, with the excellent art styling and animation communicating a comedic air, while the tougher game mechanics suddenly increase the tension for the player. This escalation of both the comedy and gaming tension arguably encapsulates Meeher's vision for *Metal Slug 2,* to make "*a scaled-up sequel*" and include a "*lot of surprises for players*".

Another crazy and comedic addition to *Metal Slug 2* (along with wandering items, or points box Rumi Aikawa) is supporting side character Hyakutaro Ichimonji. When rescued, this prisoner helps the player by fighting alongside them, throwing Hadoken-style energy balls at enemies at range and roundhouse kicking them in melee. The question is, who exactly is Ichimonji? Meeher clears things up:

"Some special agents allowed themselves to be captured by the enemy so they could infiltrate them. Hyakutaro is one of those agents. Because of his tremendous martial arts skills and training, his body is hard as iron, and he knows a technique to channel the chi in his body and release it to attack enemies. Most of the spies don't get directly involved in the fighting, but Hyakutaro utilises this technique to help Marco and the others."

While that clears up who Hyakutaro is, what about the aliens and their sci-fi technology? Interestingly, in some of the concept art for the original *Metal Slug,* there are quite a few sci-fi designs for characters, vehicles and locations. However, it's only in *Metal Slug 2,* under Meeher's stewardship, that these start to appear, which are then taken to even greater levels in *Metal Slug 3*. Meeher himself explains exactly why the aliens get involved:

"General Morden lost half his forces due to his failure in the last game, and he hasn't fully recovered. In Metal Slug 2, *Morden is actually still in the planning stage of his next coup d'état. Through reconnaissance, the government army learns of his plans, and strikes a pre-emptive blow. Morden is utilising alien technology to prepare for his new rebellion, and some of that can be seen, in a half-finished state, in stages 5 and 6."*

As to why these distinctly *Independence Day*-style aliens appear to be helping General Morden by granting his forces their advanced alien technology, Meeher explains:

"Their intentions and identity are not made clear. What seems certain is that they had a crash landing on Earth, and, in exchange for the secrecy needed to carry out their repairs, they offer their alien technology to bait General Morden into helping them. It has been reported, however, that they do not think kindly of General Morden, who is trying plunge the beautiful Earth into the vortex of war."

The X factor

Metal Slug 2 was demonstrated at the 1998 Amusement Machine Operators' Union Show in Tokyo and then released to the public in February of the same year. Very quickly, this bigger, wackier sequel went on to win NEOGEO gamers over with its attitude of more, more and a hell of a lot more. However, despite its acclaim by fans, there was one issue that everyone noticed – slowdown.

Indeed, right from Mission 1 of *Metal Slug 2,* there are moments in each stage where the game's frame rate drops to a fraction of its usual, silky-smooth level. While the game is definitely still playable, the effect is particularly marked compared with the very rare moments in the original, and what's even more puzzling is that on the surface the game looks just like its predecessor. So, why was the slowdown in the sequel so bad? Shinichi clears things up:

"The truth is that we changed and improved many of the underlying systems for part two. I think the slowdown probably came from us being able to do a lot more in Metal Slug 2, *and that having an effect on performance in some places. From the perspective of the system,* 2 *was much better built than* 1, *but I guess we got carried away. This is likely most noticeable on Mission 1, because we still weren't sure where to draw the line."*

"I think the slowdown probably came from us being able to do a lot more in Metal Slug 2*" - Shinichi Hamada*

So, it was due to a change in the background system as well as the team's desire to go big that caused *Metal Slug 2* to generate slowdown. But, as Hamada adds, this change in the game's base code was also responsible for many of the game's new features and improvements, too. For example, thanks to new terrain implementation, the game used considerably less CPU resources, meaning that the team were able to add things like the Slug Flyer.

Regardless, Hamada can't escape the feeling that the team dropped the ball slightly, stating that: *"As a programmer, slowdown is actually pretty embarrassing. When I look back at it, it seems intentional in parts, but, at the time, I was disappointed I couldn't fix it."*

That disappointment would play a large role in what happened next for Nazca, which, after being subsumed by SNK in 1998, would not only proceed to start working on *Metal Slug 3,* but also on a second project designed to put right not just that slowdown, but also take *Metal Slug 2* to even greater levels of bombast, comedy and fun.

That secondary project was *Metal Slug X*, a modified version of *Metal Slug 2* that not only fixed most of the slowdown, with the game technically running off the same engine code that would power *Metal Slug 3*, but also introduced extra features as well.

These features included new weapons such as the Drop Shot and Iron Lizard, different times of day in levels (such as in the very first stage, where the level starts at night instead of during the day), tweaked enemy locations and types like the Dog Mummy, switched up vehicle locations and abilities (the golden tank can jump higher and move faster, for example), alternate bosses and a harder difficulty overall.

Metal Slug X also featured a reworked soundtrack and announcer, with the latter now boasting even more voice samples. Those players who beat this crazier, tougher version of *Metal Slug 2* got a brilliant reward as well, with a fantastic selection of concept art from the development of *Metal Slug* shown off as the credits roll.

Metal Slug X was released less than one year after *Metal Slug 2*, with the title hitting SNK hardware on May 27, 1999. This Japanese release date was also shared with another Metal Slug game, the fantastic NEOGEO Pocket Color spin-off, *Metal Slug 1st Mission*.

Metal Slug in your pocket

The idea that a mobile Metal Slug game could be made at all on the comparatively primitive portable hardware of the late 1990s seems today almost inconceivable. After all, how could you carry over *Metal Slug*'s incredibly detailed and characterful art style and animation, high frame rate, frenetic gameplay and cinematic soundtrack on the NEOGEO Pocket Color, a 16-bit handheld system that had only just received a version capable of displaying colour a couple of months prior to *1st Mission*'s release?

That challenge fell to Ukiyotei, a small Osaka-based game maker founded by Kenshi Naruse, which had previously brought gamers the side-scrolling platform games *Hook* and *Skyblazer*, as well as working on SNK's *Samurai Shodown* and Taito's *Puzzle Bobble* / *Bust-A-Move* series on the NEOGEO. With careful design and programming, it was more than possible, and *1st Mission* delivered a fantastically playable scaled-down version of the core Metal Slug gameplay on the NEOGEO Pocket Color system.

The game featured all the hallmarks of the full-fat Metal Slug games, including a derring-do military mission, fast-paced and varied gunplay, numerous heavy Metal Slug vehicles to jump in and out of, massive climatic end bosses to overcome and – most amazingly, considering the technical limitations of the system – characterful animation and graphics.

Indeed, this first portable Metal Slug spin-off was so popular that it would be followed up by an even more ambitious *2nd Mission*, which hit the NEOGEO Pocket Color market a year later. This game followed the same template, but increased the amount of playable missions, introduced yet another Slug vehicle to pilot – the underwater Sub Slug, which feels very much like a nod to *In the Hunt* – and allowed the player to select from different heroes, each with their own separate but interconnected plot and course through to the game's climax.

And, speaking of different paths to achieving victory, that is something that would famously be incorporated into what many gamers now consider to be the best Metal Slug game ever made, the trilogy-completing *Metal Slug 3*.

Three is the magic number

Headed up once more by series veterans, Meeher and Akio, *Metal Slug 3*[12] was, at first, developed alongside *Metal Slug X,* and then, upon the latter's release, became the sole focus for the Metal Slug team.

And, if gamers thought *Metal Slug 2* had been crazy, they hadn't seen anything yet. Meeher and his team not only created the largest and most extensive Metal Slug game to date, in terms of systems and scope (new enemies, weapons, Slugs and more), but they also cranked up the zaniness to staggering levels, with an incredible pantheon of sci-fi elements littering every single stage.

For example, in Mission 2, none other than the Men in Black make a guest appearance, while in Mission 4, the player is assaulted by giant plants, which are very reminiscent of Audrey from *The Little Shop of Horrors*. We also get a return of the *Independence Day*-style squid aliens from *Metal Slug 2*, and in Mission 5, the player is faced with an army of human clones that seem indebted to the sci-fi classic *Invasion of the Body Snatchers*.

And that's saying nothing about the crazy new transformations possible in the game. For example, if the player is hit by the yellow vomit spewed by the game's new zombie enemies, they too become zombified, with their speed dramatically reduced. This transformation works similar to the mummification transformation first introduced in *Metal Slug 2*, but, this time, the player is equipped with a powerful blood vomit attack. This escalation typifies the larger, crazier *Metal Slug 3*.

Equally crazy are the third game's new Slug vehicles, with notable new additions like the Elephant Slug (yes, that's an elephant with a pair of Vulcan cannons bolted to it!), Ostrich Slug (yes, that's an ostrich with a pair of Vulcan cannons bolted to it!) and space rocket Astro Slug mixing up the gameplay in dynamic and action-packed ways.

However, these new features were secondary to the biggest change in *Metal Slug 3*: the addition of a branching paths structure. For the first time in a Metal Slug game, the player could now choose their own route through four of the game's five missions. And, while all routes eventually lead to the same end mission and boss battle, the different ways of getting there meant replay value was taken to brilliantly varied new levels.

What's more, some of these routes weren't immediately obvious, either, adding in a cool level of discovery and surprise for the player. Combined with the plethora of new enemies, Slugs, transformations and weapons, as well as the character-stuffed Metal Slug art and animation, this branching structure created an almost jazz-style unpredictability and liveliness in *Metal Slug 3*, with each run by the player always just a little bit different from the last.

> *"You can see decades of arcade heritage being shown off in a freewheeling masterpiece of design and programming"*

But, arguably, the most impressive thing about *Metal Slug 3* is that, despite all of the new features, it still remains faithful to the first game's genre-bending values. Just look at the game's final level – it's simply incredible! It opens as a continuous side-scrolling shoot 'em up, with the player piloting the Slug Flyer. It then transitions into a continuously scrolling run-and-gun, before shifting into a fixed-location boss battle. After that, it remarkably transitions into a vertically scrolling shoot 'em up with the player in the Astro Slug, before shifting back into a scroll-and-stop run-and-gun with multiple fixed-location boss battles and numerous vehicle transitions. The fluidity in genre and mechanics is just jaw-dropping.

What's so amazing is that, as that final *Metal Slug 3* level plays, you can, literally, see decades of arcade heritage being shown off in a freewheeling masterpiece of design and programming which, arguably, has not been matched to this day.

Metal Slug 3 had taken the pure experience and vision of the original game and stretched it to its absolute maximum. The game was bigger, brasher, louder, zanier and, as many NEOGEO fans now attest, funnier than any other game in the series. It was the brilliant culmination of years of Metal Slug development – a train of incredible vision, skill and hard graft that stretched all the way back to that eventful summer of 1994 when Nazca rose from the ashes of Irem.

The campaign had been long, and this band of brothers had lost close friends in the process. However, here at the turn of the century, and long after 3D had become the default medium for video games, Akio, Meeher, Susumu, Andy and the others had successfully completed their mission – a trilogy of Metal Slug games now sat in arcade centres and homes worldwide, and video game history had been made.

> "Metal Slug 3 *had taken the pure experience and vision of the original game and stretched it to its absolute maximum"*

The war is over

Celebrations, though, were short-lived. With the year 2000's New Year festivities still echoing in the minds of the Metal Slug team, SNK was acquired by pachinko machine producer Aruze when the game maker's poor financial state finally caught up with the company.

Within months of the takeover, SNK's operations in America were shuttered and, not long after, with founder Eikuchi Kawasaki and other executives leaving the company, Aruze allowed SNK to file for bankruptcy and started auctioning off its remaining intellectual property rights.

Staff had been leaving the company continually since the Aruze takeover, and any that remained now had their hands forced, with some going on to join established rivals like Capcom, while others formed their own new development studios, such as Dimps and BrezzaSoft.

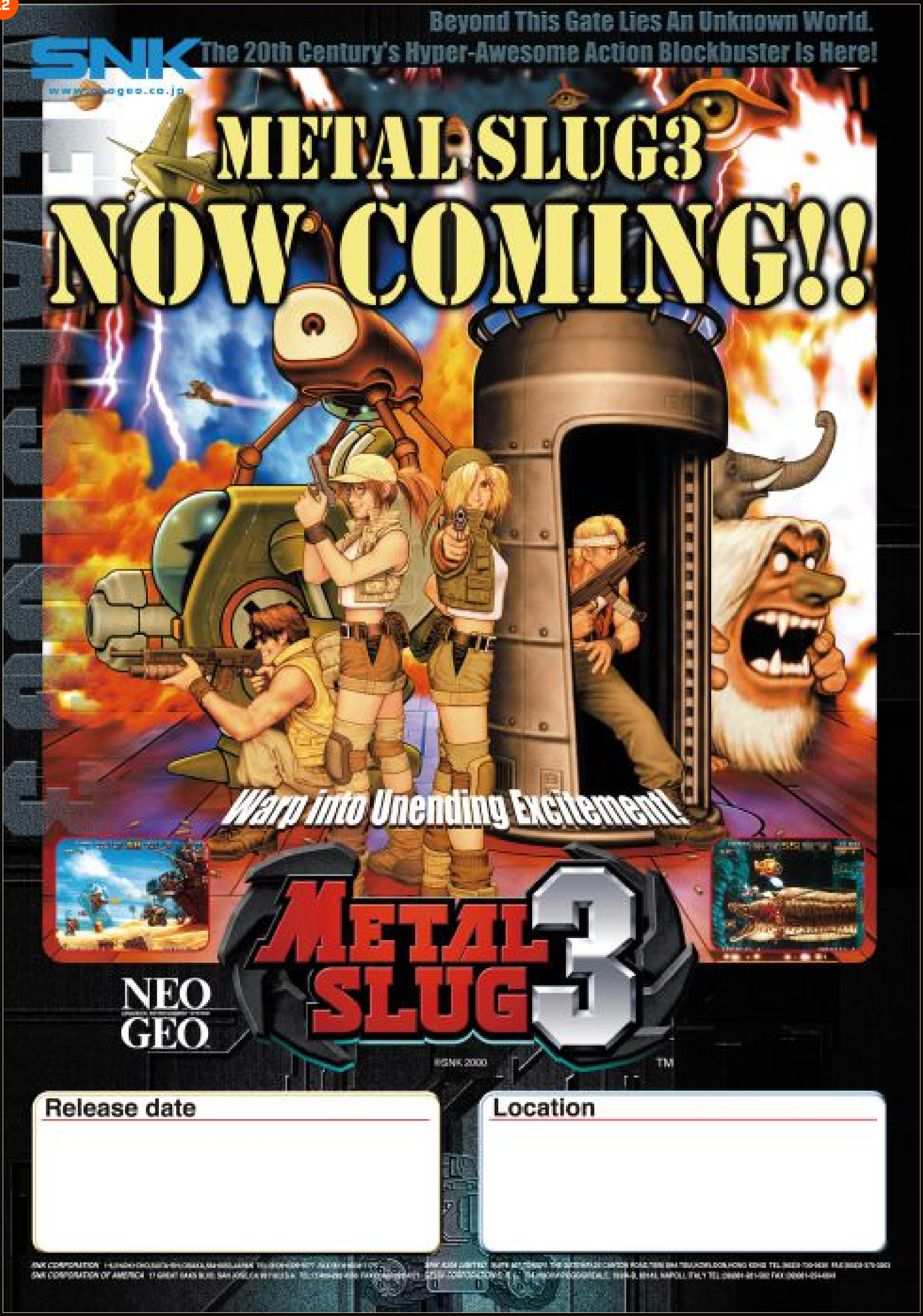
As for the Metal Slug team, SNK's bankruptcy marked the end of their involvement with the series, with the rights to Metal Slug sold off to South Korean company Mega Enterprise. The team's grand adventure that began all the way back in the Spring of '94 had, like all things in life, run (and gunned!) its course and come to an end.

And, what an end it had been. Not just for the original Metal Slug trilogy, but for the age of arcade ascendancy, the era where 2D ruled the video game world and where gamers were taken on epic adventures beneath flickering marquees. All those years, stretching right back to the early 1970s, all that programming expertise, all those long hard hours, all that culture accrued over literally decades… it was all poured without restraint into the Metal Slug series, and the result was so good, it defied time itself.

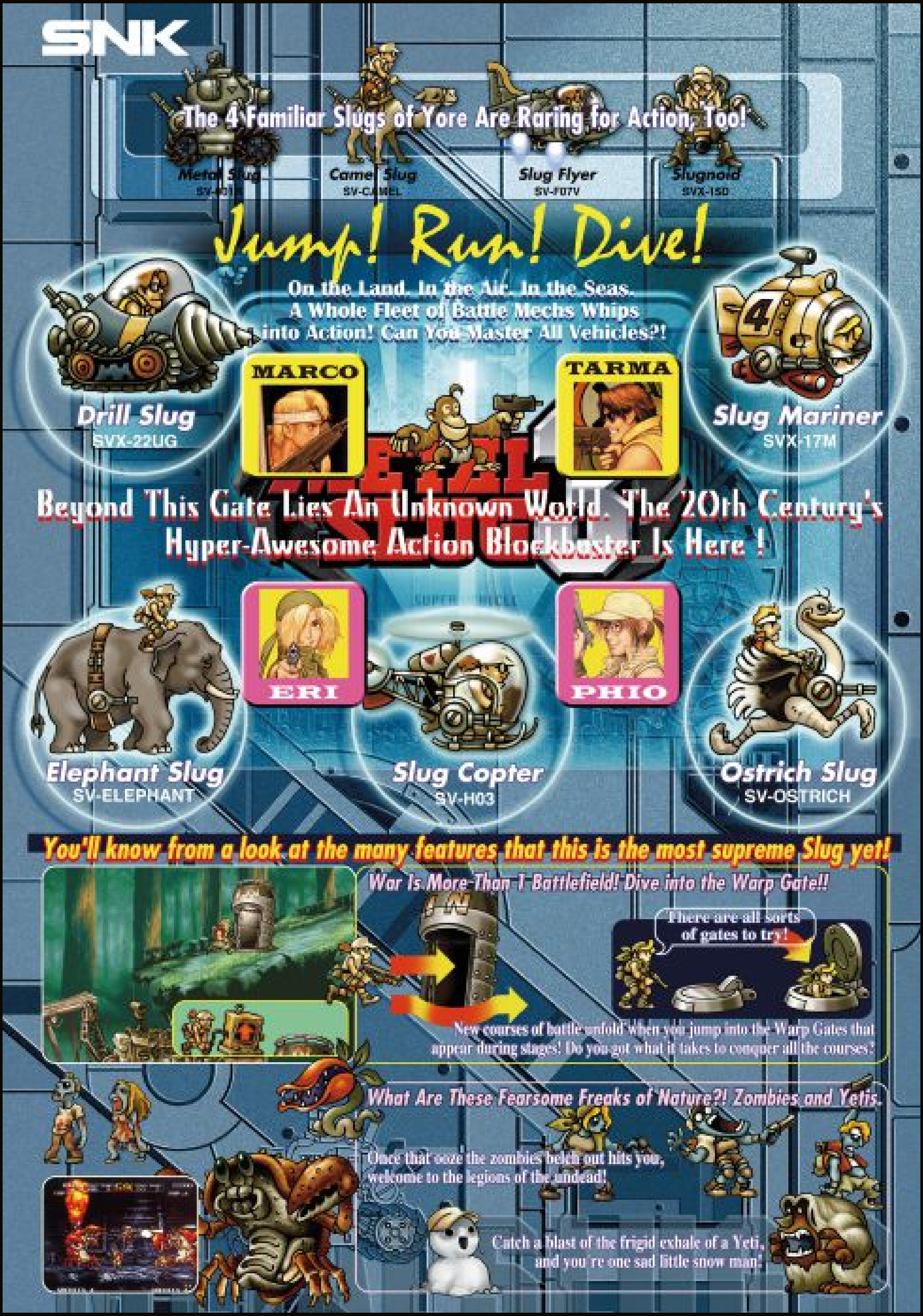
That final level in *Metal Slug 3* summed it up. Longer than four or five regular arcade game levels combined, fluidly and effortlessly switching between genre conventions and gameplay mechanics at will, breathtaking in terms of art direction and animation, filmic in soundtrack and musical score, and – as ever – jaw-droppingly spectacular and fun to play.

The Metal Slug team had blasted their way into videogame history. But, as we now discover, it was far from game over for Metal Slug…

12


Beyond This Gate Lies An Unknown World.
SNK
The 20th Century's Hyper-Awesome Action Blockbuster Is Here!
www.neogeo.co.jp
METAL SLUG3
NOW COMING!!
Warp into Unending Excitement!
METAL SLUG 3
NEO GEO
©SNK 2000
TM
Release date
Location

A promotional flyer for *Metal Slug 3* that bills the game as 'The 20th Century's Hyper-Awesome Action Blockbuster'. Taking the best bits from the initial Metal Slug games, it adds a ton more features such as branching paths and vehicles like the Astro Slug that can go into space.


SNK
Metal Slug
SV-001
Camel Slug
SV-CAMEL
Slug Flyer
SV-F07V
Slugnoid
SVX-15D
Drill Slug
SVX-22UG
Slug Mariner
SVX-17M
MARCO
TARMA
ERI
PHIO
Elephant Slug
SV-ELEPHANT
Slug Copter
SV-H03
Ostrich Slug
SV-OSTRICH
There are all sorts of gates to try!

The 4 Familiar Slugs of Yore Are Raring for Action, Too!

Jump! Run! Dive!

On the Land. In the Air. In the Seas.
A Whole Fleet of Battle Mechs Whips
into Action! Can You Master All Vehicles?!

Beyond This Gate Lies An Unknown World. The 20th Century's
Hyper-Awesome Action Blockbuster Is Here !

You'll know from a look at the many features that this is the most supreme Slug yet!

War Is More Than 1 Battlefield! Dive into the Warp Gate!!

New courses of battle unfold when you jump into the Warp Gates that appear during stages! Do you got what it takes to conquer all the courses?

What Are These Fearsome Freaks of Nature?! Zombies and Yetis.

Once that ooze the zombies belch out hits you, welcome to the legions of the undead!

Catch a blast of the frigid exhale of a Yeti, and you're one sad little snow man!

Back from the dead

The Metal Slug series returned in March 2002, under the stewardship of Mega Enterprise, in the form of *Metal Slug 4*[13]. Released once more on NEOGEO MVS and NEOGEO AES systems, the game iterated on the previous entry while also introducing new characters, gameplay mechanics and the 'Metallish' combo scoring system, which was exclusive to *Metal Slug 4*.

For example, in *Metal Slug 4,* established characters Tarma and Eri are not playable, and are replaced by new recruits, Trevor Spacey and Nadia Cassel. In addition, the player can now wield two sub-machine guns at once and, in the opening and closing missions, if the player is hit by the special chemical shot fired by the game's scientist enemies, they are transformed into a monkey.

Metal Slug 4 also introduced new pilotable vehicles for the player to take control of, including the Metal Crow, Walking Machine and, as it's known by Metal Slug fans, the M-15A 'Bradley-Slug'.

So, while *Metal Slug 4* did not recreate quite the same incredible experience that previous Metal Slug games had (and notably the first and third instalments), it was remarkably faithful to the formula that had made the original trilogy so popular and, as a result, looked, sounded and played like a Metal Slug game.

This was firstly because *Metal Slug 4* actually reused many backgrounds and sprites from previous games and, secondly, while the game was headed up by the Korean company, Mega Enterprise did not have the technical expertise to make a new game on its own. Instead, it enlisted the help of old SNK developer Noise Factory to help with programming and design, as well as the production of the game's soundtrack.

And, speaking of retaining that Japanese heritage, the publisher of *Metal Slug 4* was none other than Playmore, the new company formed by ex-SNK boss Eikichi Kawasaki. In October 2001, shortly after SNK had been filed for bankruptcy by Aruze, Kawasaki successfully bid for and was awarded SNK's intellectual rights.

A new trilogy

As SNK fans will know, the awarding of SNK's intellectual rights to Playmore kickstarted a train of events that would see the maker reclaim its old name a year later in 2003, when it become SNK Playmore, and also publish the fifth and – for the NEOGEO hardware platform – final Metal Slug game. *Metal Slug 5* hit the NEOGEO for the last time in November 2003 and, with Mega Enterprise now out of the picture, many of the changes introduced in *Metal Slug 4* were removed. For example, Eri and Tarma return as playable characters and Trevor and Nadia are removed, the monkey transformation is cut out, and the combo Metallish System abandoned.

However, while many things were removed in *Metal Slug 5*, one notable new gameplay mechanic was added – the ability to slide-dash sideways. The slide move enabled the player character to quickly manoeuvre and evade enemies, and was actuated by pressing the jump button while crouching. As with the Metallish combo system in *Metal Slug 4*, the slide-dash move would be exclusive to this instalment only, being removed for the next game in the series – and the last one to be produced for arcade hardware. The second-trilogy-completing *Metal Slug 6*, was launched on the Sammy Atomiswave arcade system in 2006.

Metal Slug 6 once more iterated on the established Metal Slug formula, bringing in new characters (Ralf and Clark, who originally appeared in the Ikari Warriors series and would also make appearances in THE KING OF FIGHTERS series), weapons (the Zantetsu 'Z' Sword springs to mind), vehicles (the Donkey Slug and Slug Digger being two notables) and crazy gigantic bosses to beat (such as the visually arresting Sea Worm). The game also introduced a two-tiered structure to difficulty, with players selecting from Easy or Hard modes before each play session.

Metal Slug 6 was the first main game not to run on SNK's NEOGEO MVS arcade hardware, a fact that on the one hand allowed some cool new advanced graphical effects to be included, such as epic camera zoom-outs during some of the game's super large boss battles, but on the other hand saw a departure from gorgeous, pixelled-by-hand backgrounds in favour of, arguably, blander pre-rendered ones. However it was also a special game for another reason as it was one of two games produced for release in 2006 to commemorate the Metal Slug series' 10th anniversary.

There had been a full decade of Metal Slug games, and despite SNK going bankrupt, the rights to Metal Slug sold off for a period to a third party, and wholesale changes in staff halfway through, the 2D series was still blasting its way to victory in a time where the video game console of the day was the 3D juggernaut Xbox 360. It was a truly remarkable achievement.

Disappointingly for some fans of Metal Slug, though, the other game released in 2006 to celebrate the series was the opinion-splitting, Japanese exclusive PlayStation 2 title *Metal Slug 3D* which, as the name suggests, took the series for the first time into the third dimension. Unfortunately, Metal Slug went 3D with mixed results, where some fun Super Vehicle gameplay was brought down by a rough, polygonal look and sparse environments.

Metal Slug had taken its first step away from its 2D arcade origins and, as we now see, this very much began the age of Metal Slug that we find ourselves in today. An age where modern new Metal Slug titles exist, but largely not in the form that made the original games classics.

> *"It is, without doubt, truly amazing that Metal Slug continues to be played today, and by many gamers who weren't even alive when the original game came out all those years ago."*

Post-arcade Metal Slug

Following the badly received experiment with 3D in 2006, the Metal Slug series then saw a wide variety of games released under its name over the next decade.

These titles included the generally well-received Nintendo DS title, *Metal Slug 7*, which managed to build on the solid template laid down by past portable Metal Slug games such as *Metal Slug 2nd Mission* and 2004's *Metal Slug Advance*. There were also compendiums of previous titles, such as the *Metal Slug Anthology* (which neatly included interviews with some of the original team, as well as some cool extras like concept art and sound galleries) and the *Metal Slug Complete PC Collection*. Then there were reworkings of existing titles, such as *Metal Slug XX* (an enhanced, modified version of *Metal Slug 7*), plus modern mobile phone-based, tower defense genre spin-offs, such as *Metal Slug Defense* and *Metal Slug Attack*, the latter of which has received over three million downloads to date.

Indeed, there have been a plethora of mobile phone Metal Slug games released since the series' ten-year anniversary, including *Metal Slug Gaiden: Allen's Battle Chronicles*, *Metal Slug STG*, *Metal Slug Survivors*, *Metal Slug Mars Panic* and *Metal Slug Touch* – the latter paying homage to the series' origins in 'Metal Slug Zero', by not featuring a human playable character; gamers control either the Super Vehicle-001 or Slug Flyer.

Over the past few years, following SNK Playmore's transition to just SNK on April 25, 2016, the *Metal Slug Anthology* has also found itself ported to some of today's most popular consoles, such as the 2016 Sony PlayStation 4 collection, and the 2017 and then 2018 re-releases of *Metal Slug 1*, *2*, *X*, *3*, *4* and *5* on the Nintendo Switch.

It is, without doubt, truly amazing that Metal Slug continues to be played today, and by many gamers who weren't even alive when the original game came out all those years ago. It's further testament to just how good the original Metal Slug concept was and how masterfully it was realised by the Nazca team. However, it's also a shame that, since 2006, no full-fat Metal Slug game has seen the light of day, with the keys to the Super Vehicle storage facility remaining securely locked away.

The future

Here in 2019, the Metal Slug name is 23 years old and, despite the series more recently making its home in portable, spin-off titles, gamers around the world are still running, gunning, and piloting a Super Vehicle to victory, while having immense amounts of fun in the process.

But, what of the future? At the time of publication, SNK has made no official announcement regarding whether or not there will be another full-fat Metal Slug game. However, with a brand-new *Samurai Shodown* being released in summer 2019 and *THE KING OF FIGHTERS XV* jump-kicking back into action in the future, hope is certainly not lost that Marco and company could yet return once more. Metal Slug fans around the world no doubt have their fingers crossed!

After all, Metal Slug has had such an impact on so many gamers (and specifically NEOGEO fans) that some have even gone as far as to make their own homage to the great series - such as NGDEV's *Kraut Buster*[14], which hit the NEOGEO MVS in early 2019 with a NEOGEO AES version scheduled for later in the year.

> *"The first* Metal Slug *has the best game design in the series" - Timm Hellwig*

Kraut Buster, a side-scrolling run-and-gun with serious Metal Slug stylings and gameplay mechanics, was started by game developer and long-time gamer, Timm Hellwig, who can trace his history with the classic NEOGEO series right back to the original MVS launch in the arcades.

"Around 1996 or '97, I played it in the local arcade. I just loved the pixel art, especially the backgrounds and the military designs. The game oozes pixel art love out of its pores. I had never seen anything like it before; it was love at first sight."

And, while *Kraut Buster* is inspired by the Metal Slug series as a whole, for Timm, it was the original title with its military aesthetic and war movie feel that has had the biggest impact.

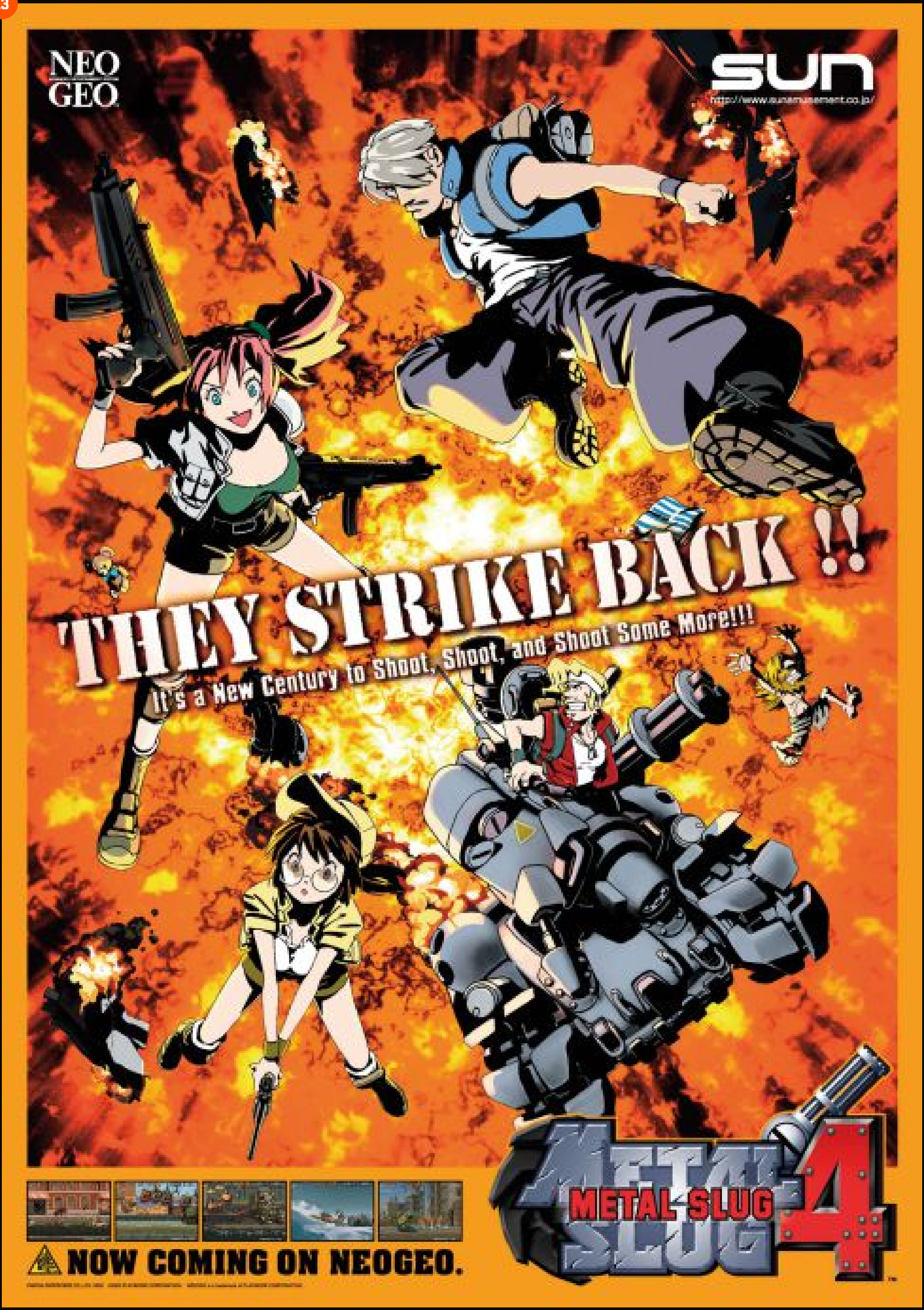
"The first Metal Slug has the best game design in the series as it was not made as a quarter-muncher," Timm notes. *"It really can be completed on one credit with a few weeks of training. Everything was very thoughtfully designed. I also like the military setting better than the later fantasy and alien settings.* Metal Slug 2, X *and* 3 *are fantastic masterpieces, too."*

As to why he feels that Metal Slug resonated so much with gamers on release and went on to be an incredibly popular series worldwide, Timm feels the games are so special *"because of their gorgeous and charming pixel art. If Metal Slug would have been polygon-based, it would not have been as popular."*

"The simple, easy to learn, yet hard to master gameplay helped a lot, too. You can put a random person in front of Metal Slug *and they will immediately have a good time – a lot of other arcade games don't have this. They require a lot of knowledge, training and determination."*

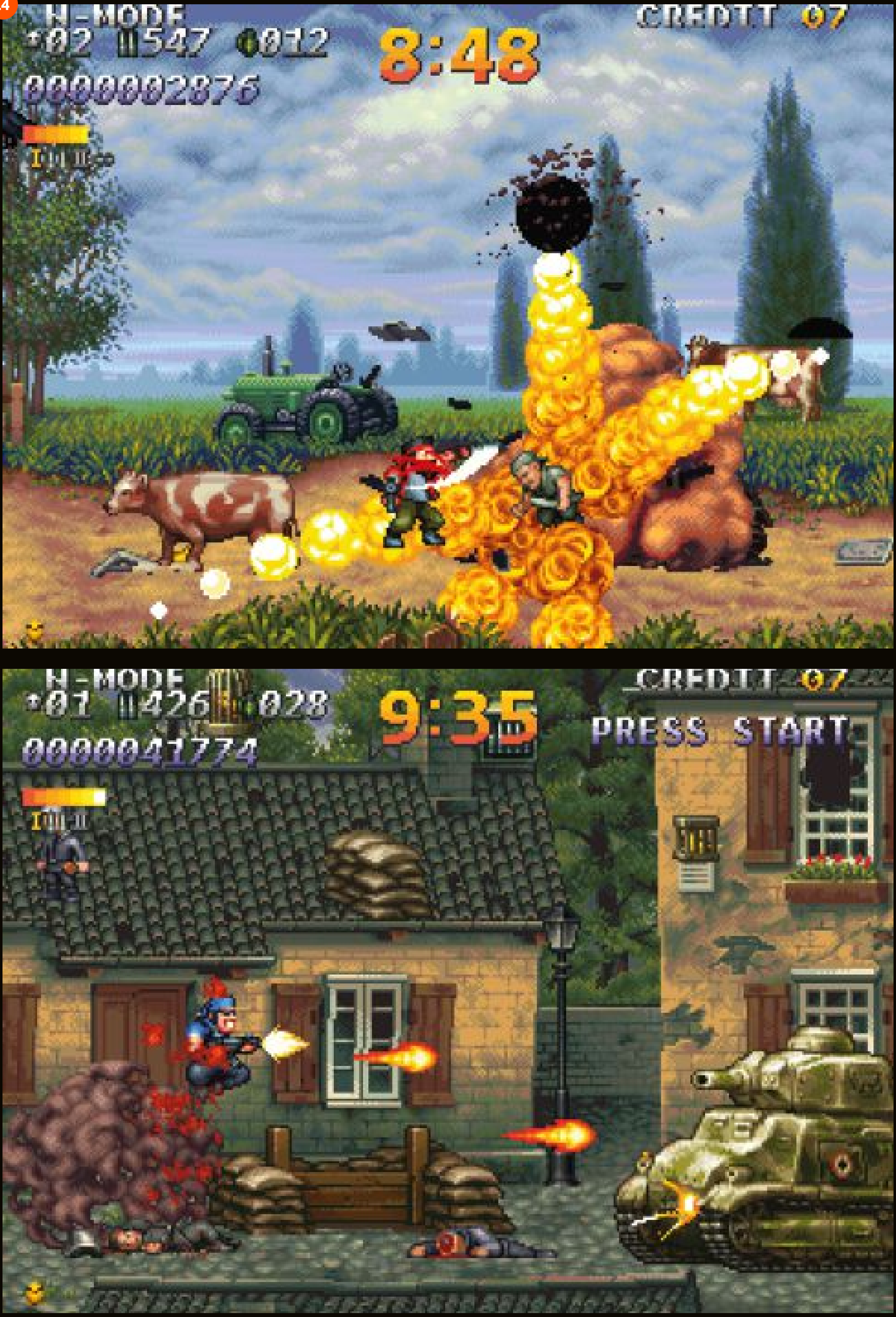
It's just as the real Metal Slug heroes, the men who made the games a reality, have said themselves in this history: stunning, artisan-level animation and pixel art, a simply incredible blend of old-school arcade genres, and fun and spectacular pick-up-and-play game mechanics which, to quote Kazuma Kujo himself, *"give the player everything you've got right from the start"*. Yes, that's the soul of Metal Slug. And it is why this special, grand old video game series continues to endure to this day.

13


NEO GEO
SUN
http://www.sunamusement.co.jp/
THEY STRIKE BACK !!
It's a New Century to Shoot, Shoot, and Shoot Some More!!!
METAL SLUG 4
NOW COMING ON NEOGEO.

An advert for *Metal Slug 4* – the first Metal Slug game to not be developed by SNK. Again, things are freshened up with two new playable characters, but the gameplay remains largely the same with many ideas and assets recycled from the previous titles.

14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NGDEV's *Kraut Buster* was released for the NEOGEO MVS in early 2019 with a NEOGEO AES version scheduled for later in the year. A clear homage to *Metal Slug*, the developers created this love letter to the series over a number of years and it was released to critical acclaim.

GAMES
93–94

Metal Slug may have launched in 1996, but its origins actually stretch back a little further than that. A select team of designers and developers produced a series of games for Irem which not only showcased the same unique graphical style that would typify *Metal Slug*, but also – especially in the case of *GunForce II* (*Geo Storm* in Japan) – serve as spiritual forerunners to SNK's run-and-gun franchise in gameplay terms. These titles may not carry the Metal Slug name, but they share a common connection that goes beyond pure aesthetics.

First released: 1993 / Players: 2 / Developed by: Irem / Published by: Irem

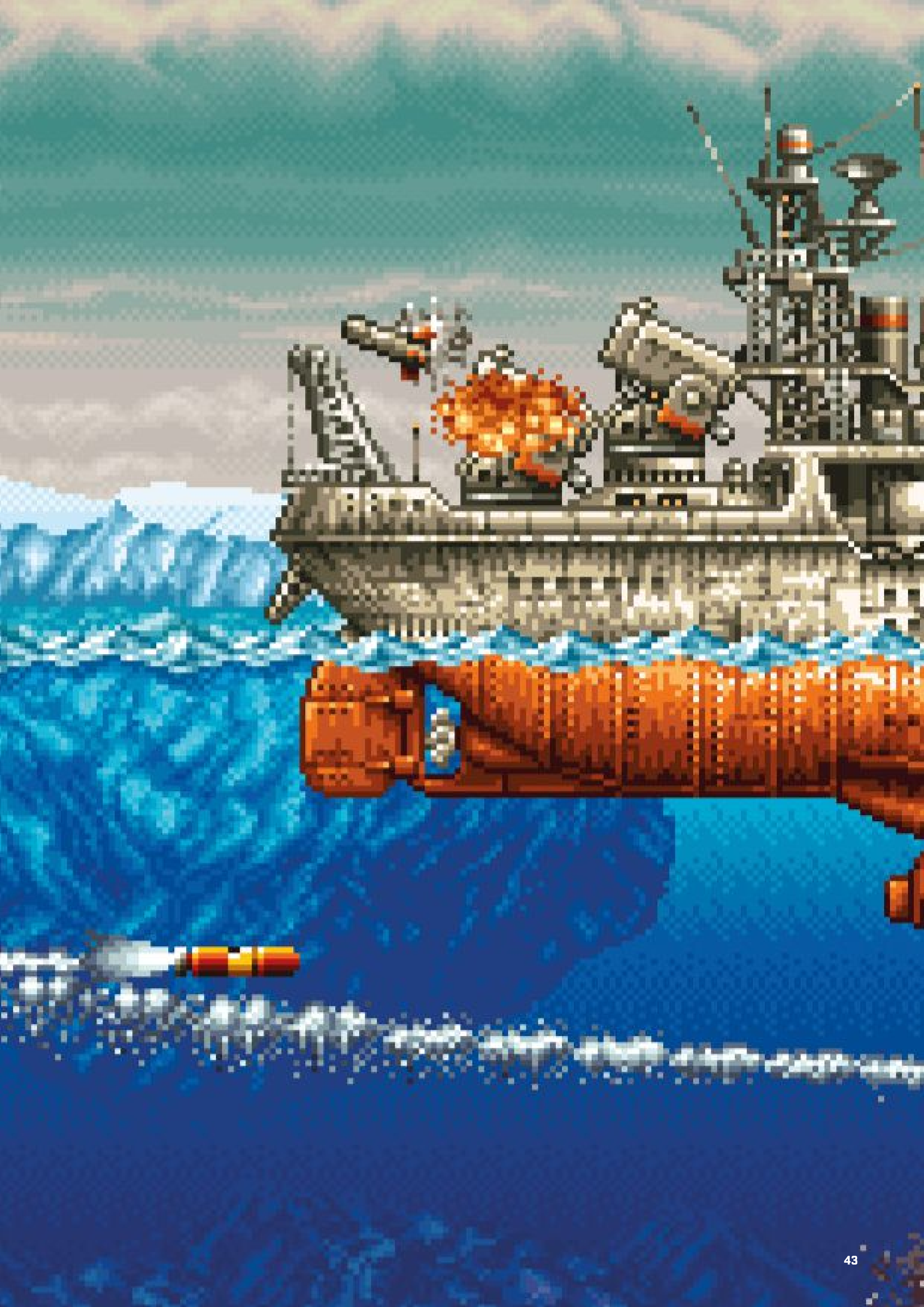
IN THE HUNT

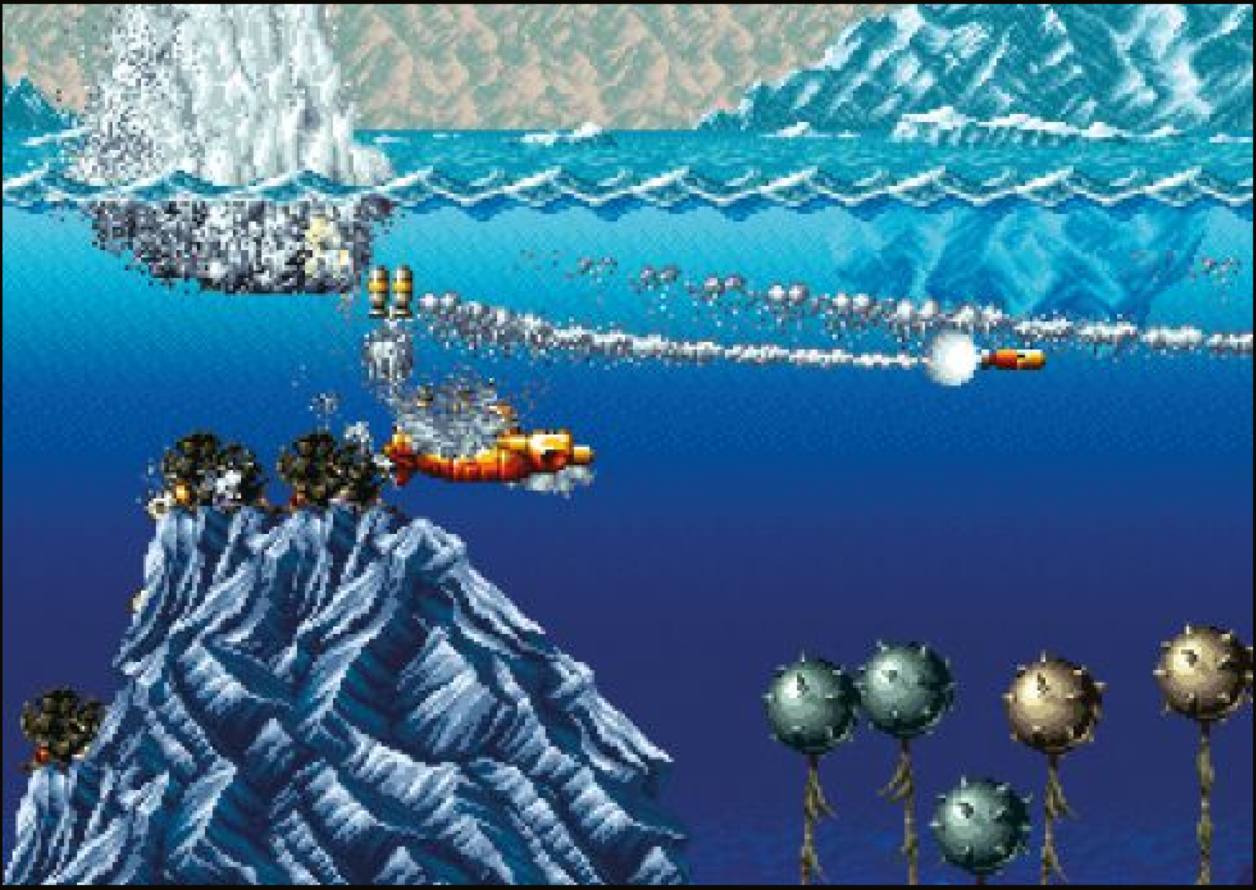
ARC SATURN PS PC

Released in 1993 by Irem, *In the Hunt* (*Kaitei Daisensou* in Japan) is a horizontally scrolling 2D shooter that is considered by many to be one of the origin points for the Metal Slug series. While the gameplay was naturally very different, the battle-worn industrial art style which Metal Slug would later make famous was present and correct, and the involvement of several key *Metal Slug* staffers solidifies the connection between the two games. *In the Hunt* began life in the arcades, but would later be ported to the SEGA Saturn, Sony PlayStation and Windows-based PCs.

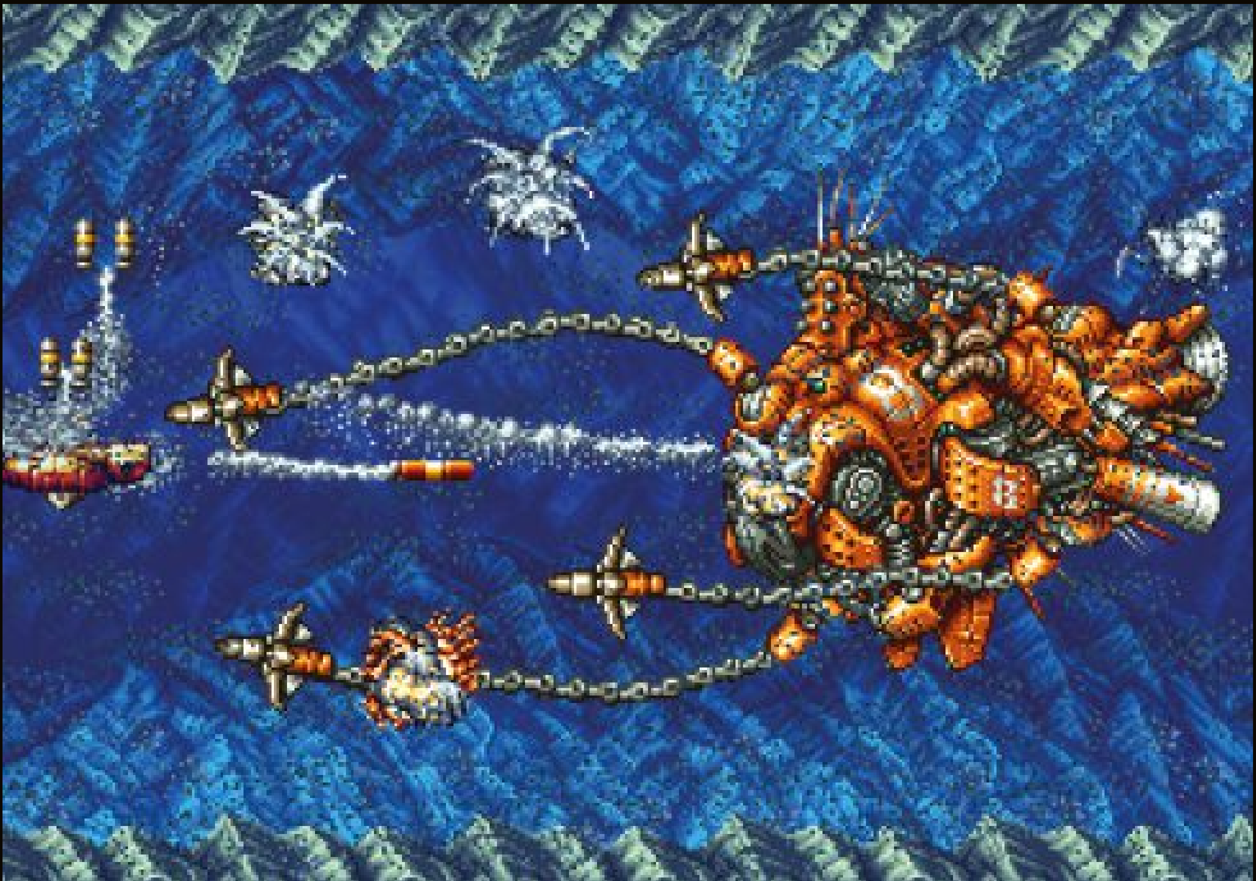
In the Hunt and *Kaitei Daisensou* are trademarks of Irem Software Engineering Inc.

Throughout *In the Hunt*, you must destroy enemies both in and above the water. To get past this armoured ship on the first stage, you have to negotiate the showers of missiles plunging from above.

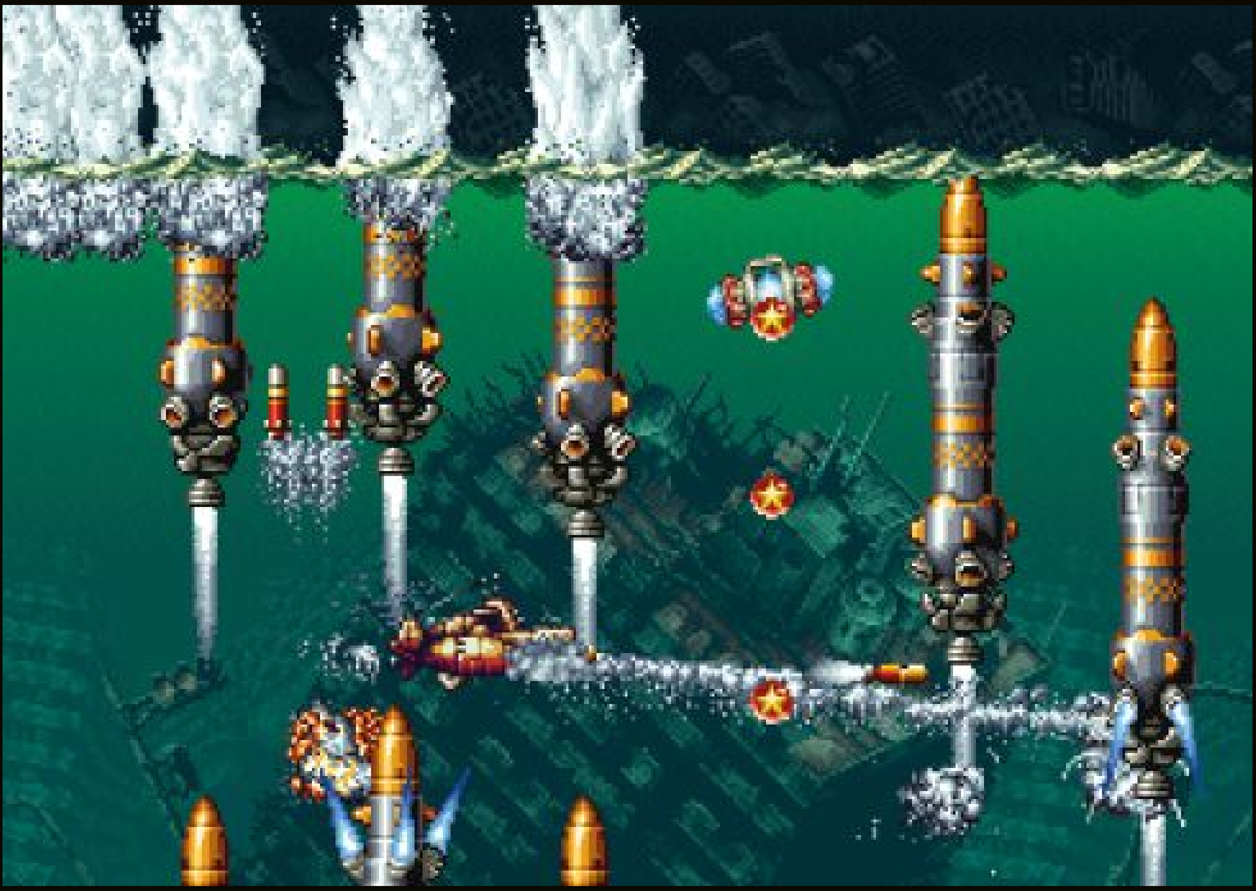




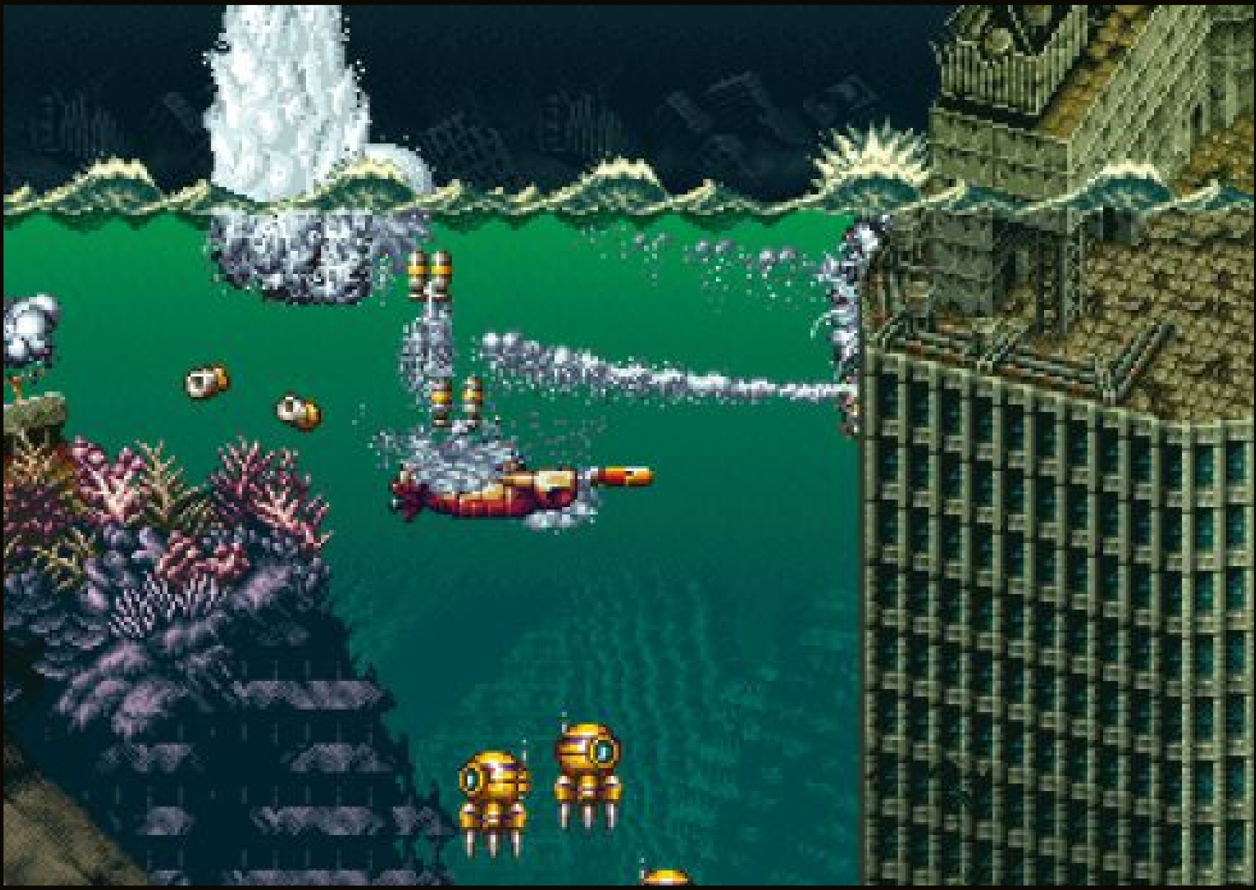
These spiked mines appear throughout the first stage. Although tricky to avoid when under fire, they are, thankfully, easily destroyed.



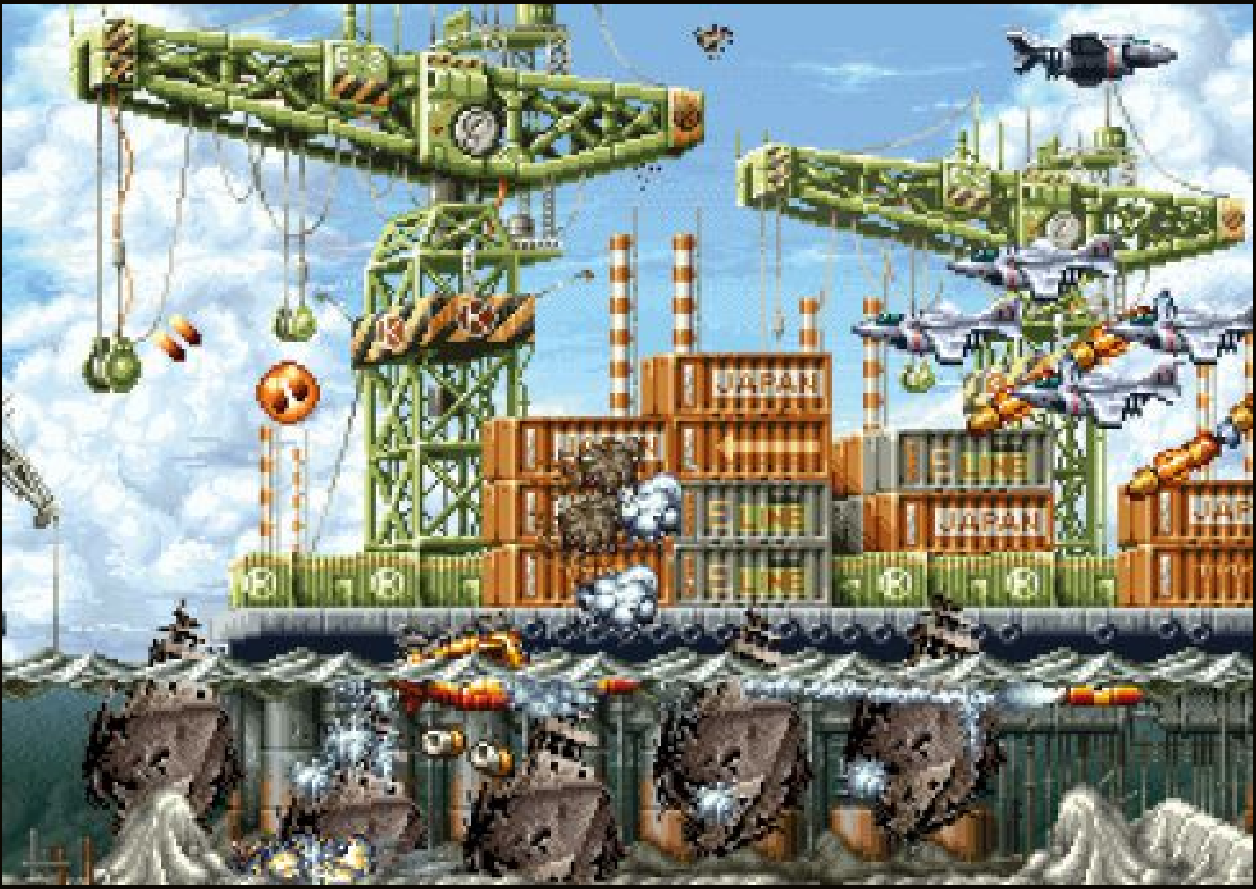
The boss at the end of the first stage has metal grappling hooks that have a long reach, making them hard to avoid.



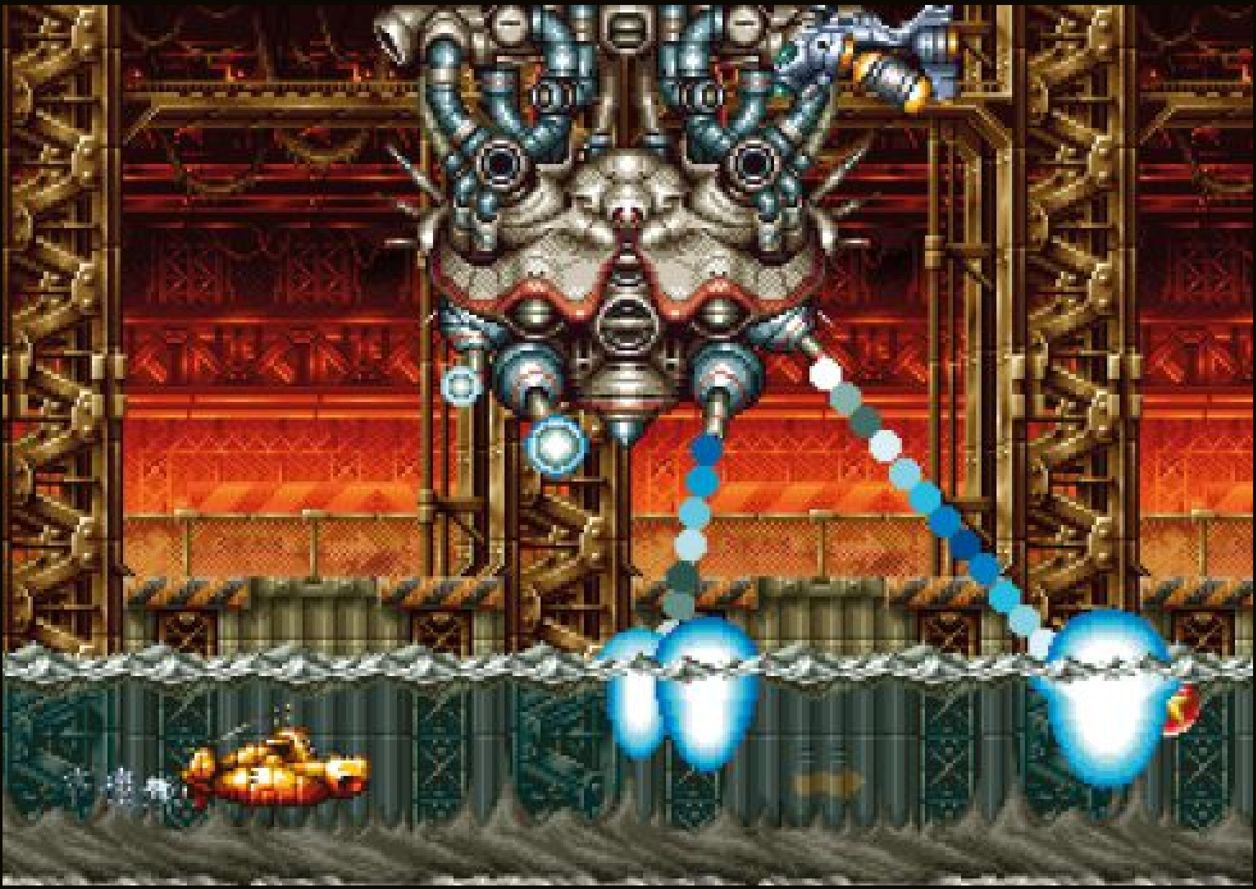
During Stage 2, you must navigate the Granvia carefully through wave upon wave of huge missiles that launch from the sea bed.



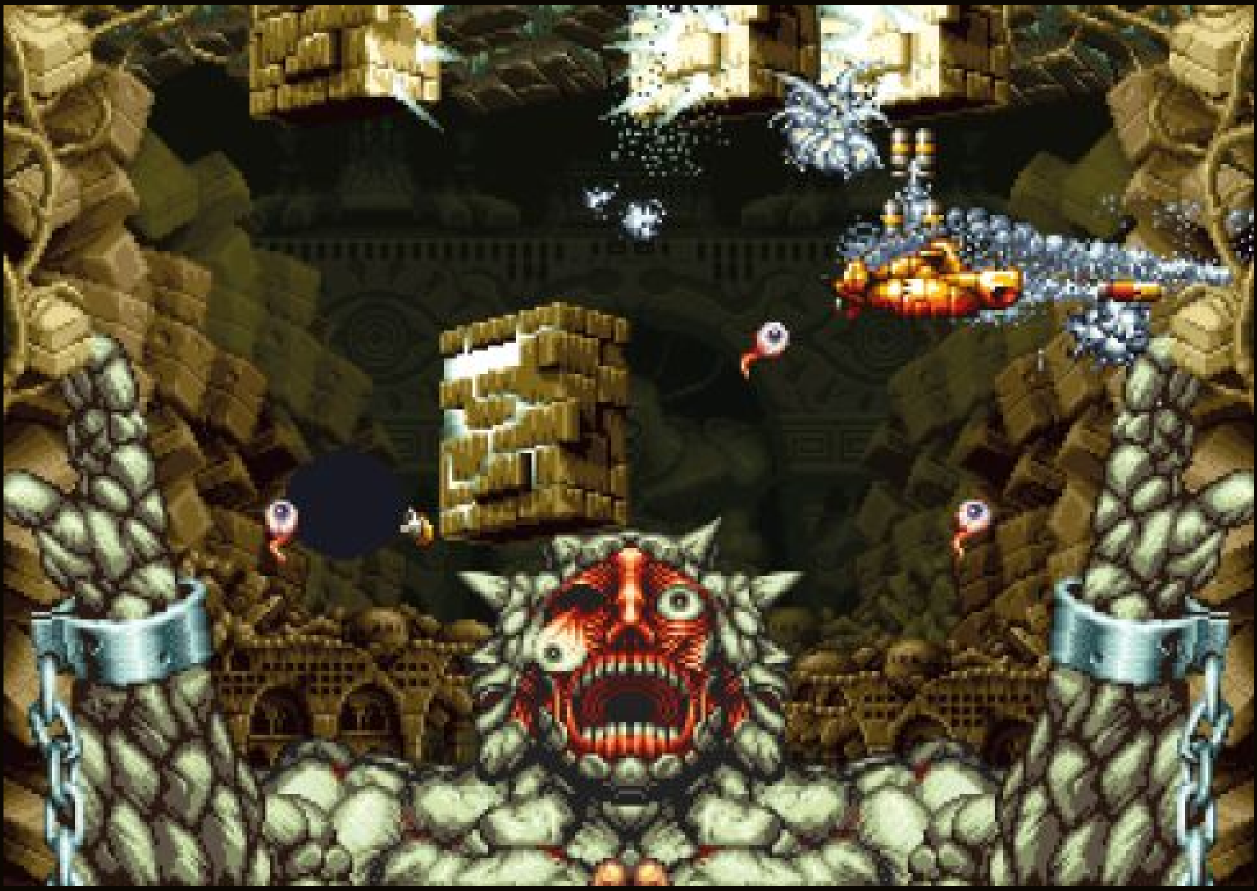
To reach the end-of-stage boss in the sunken town, you have to shoot your way through this huge underwater skyscraper.



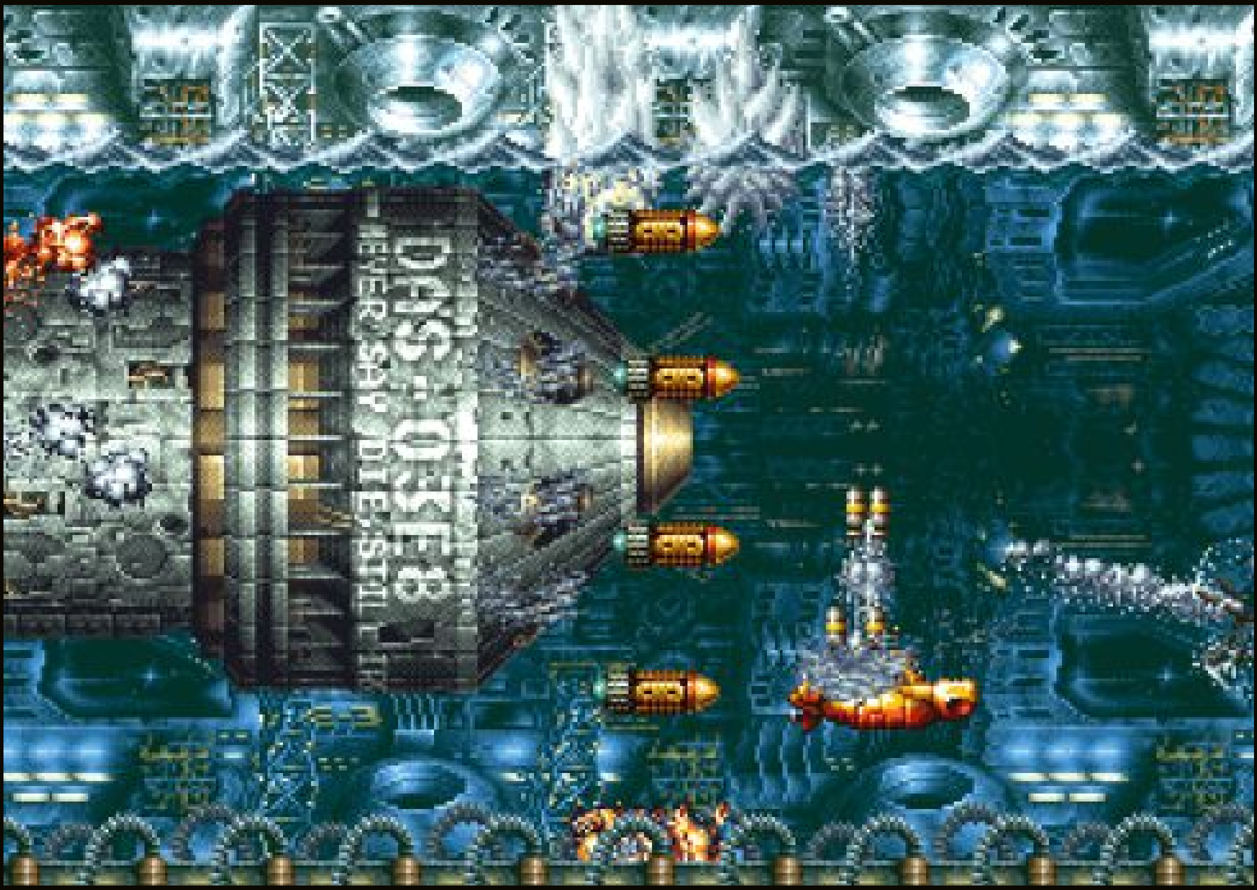
The majority of Stage 3 takes place in shallow water, so enemies tend to come from the air, with the occasional battleship thrown in for good measure.



With practice, the Stage 3 boss can be easily defeated by learning how to avoid its lasers, as well as its drill attack.

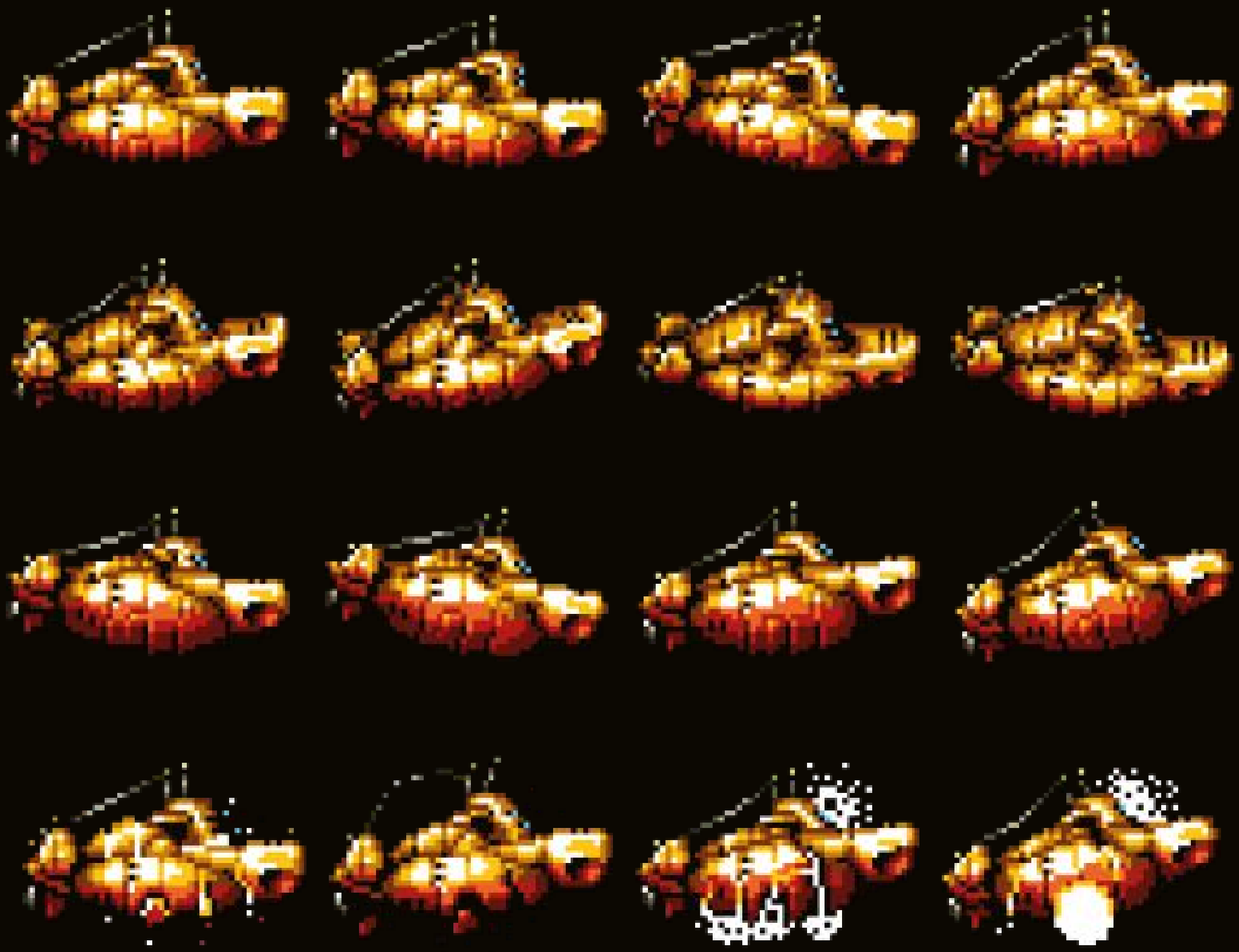


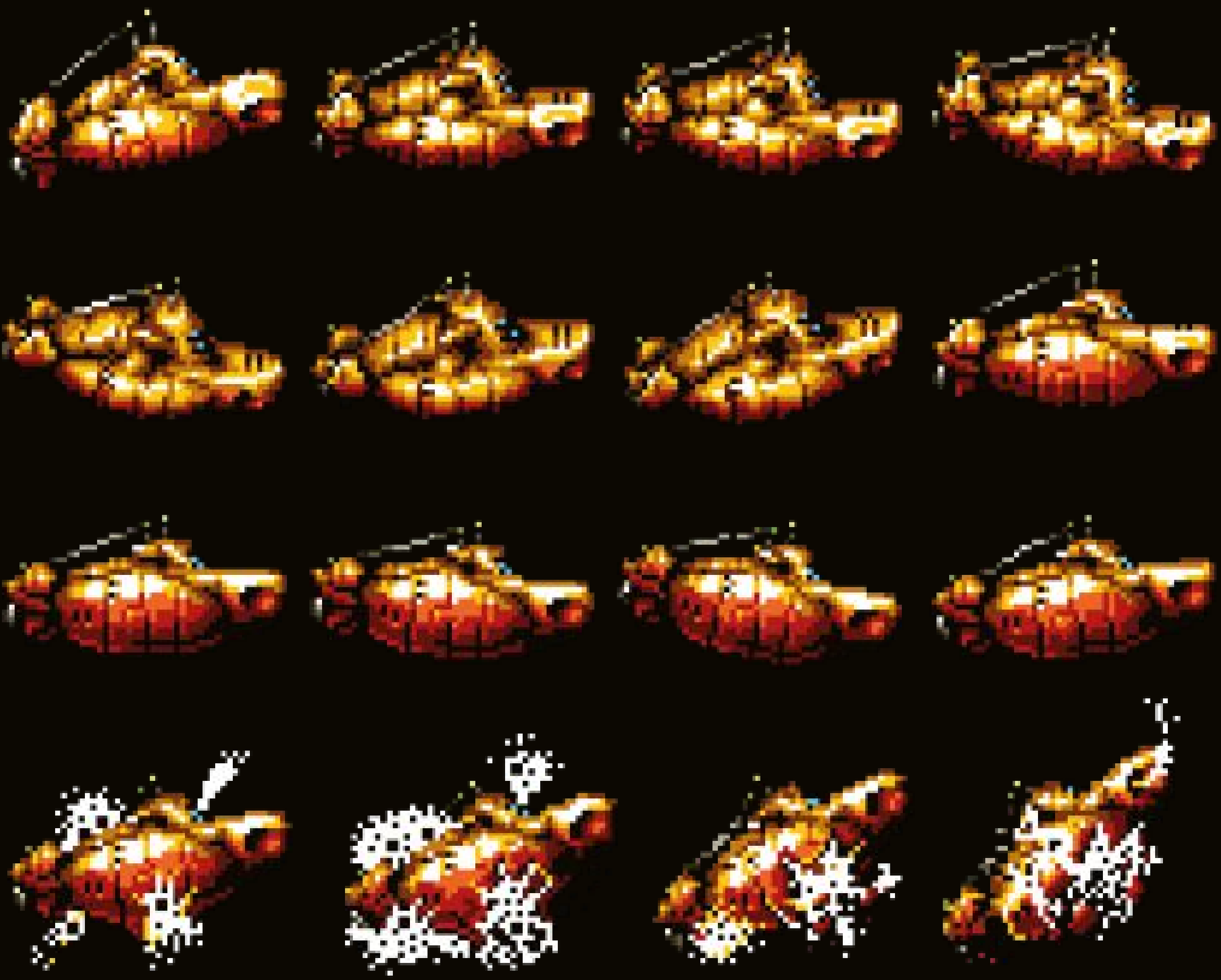
The most iconic – and largest – boss in the game, this stone monster is defeated by shooting the ceiling and hitting him with falling rocks which expose his flesh.



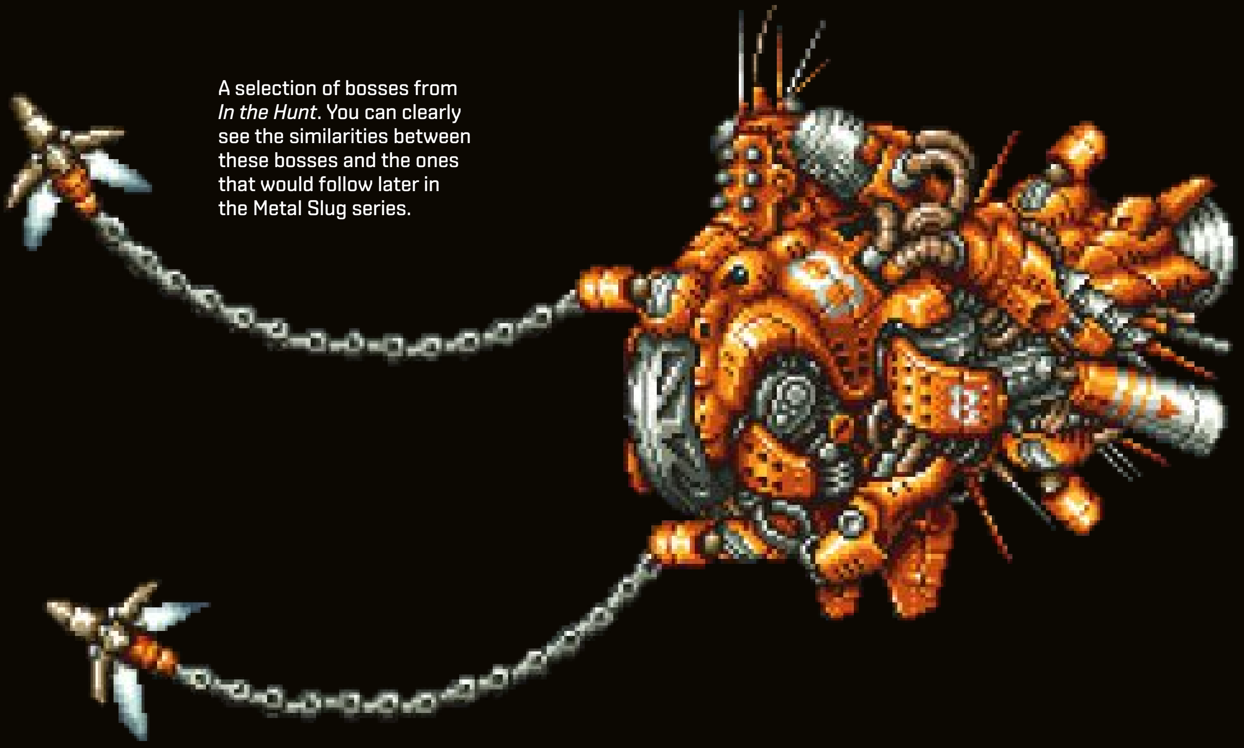
The end boss is a huge missile, named the Yugusukyuure, which is so big it must be taken apart in sections. Once destroyed, the explosion obliterates the D.A.S. headquarters and your mission is complete.

Proving that size isn't everything, the Granvia submarine may be small, but it packs some serious firepower – as well as the ability to launch torpedoes forwards and also directly above.

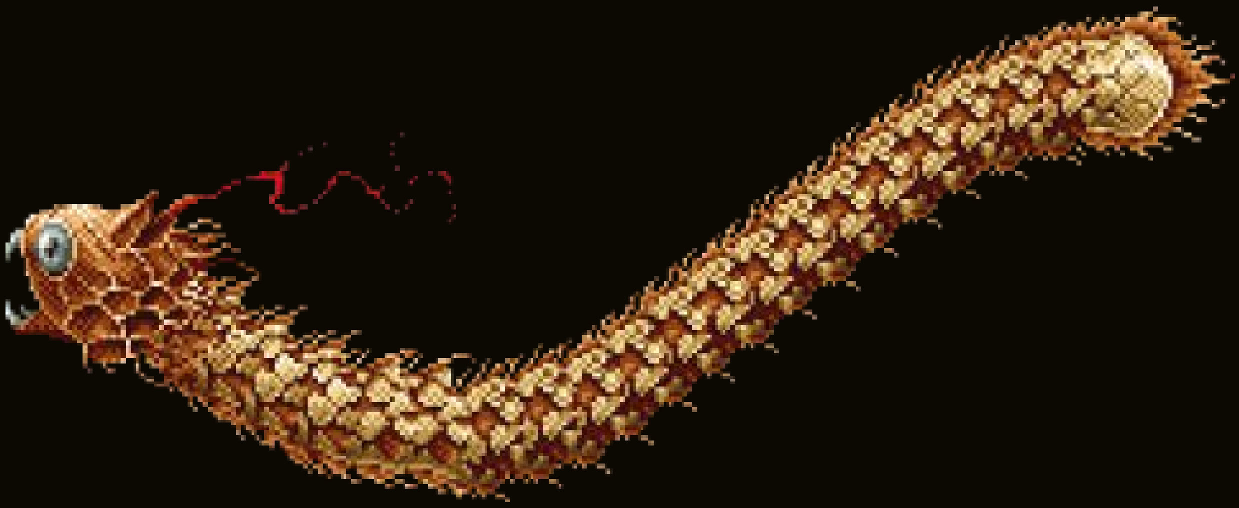




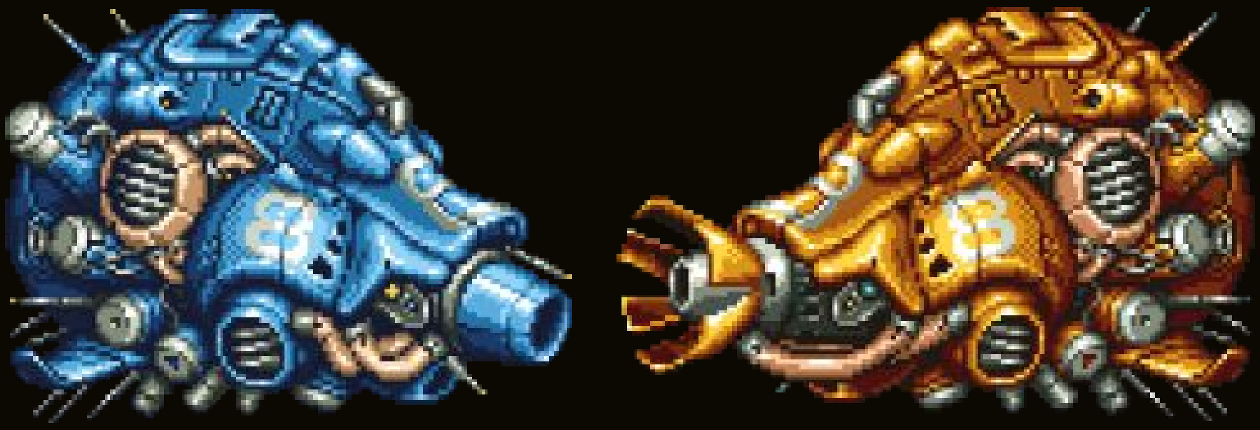
A selection of bosses from *In the Hunt*. You can clearly see the similarities between these bosses and the ones that would follow later in the Metal Slug series.



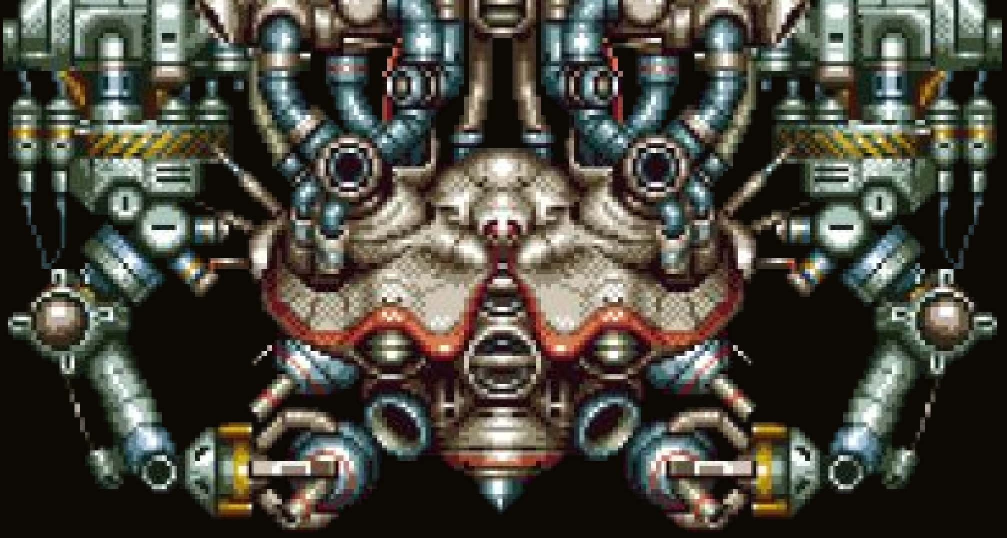
Stage 1 boss



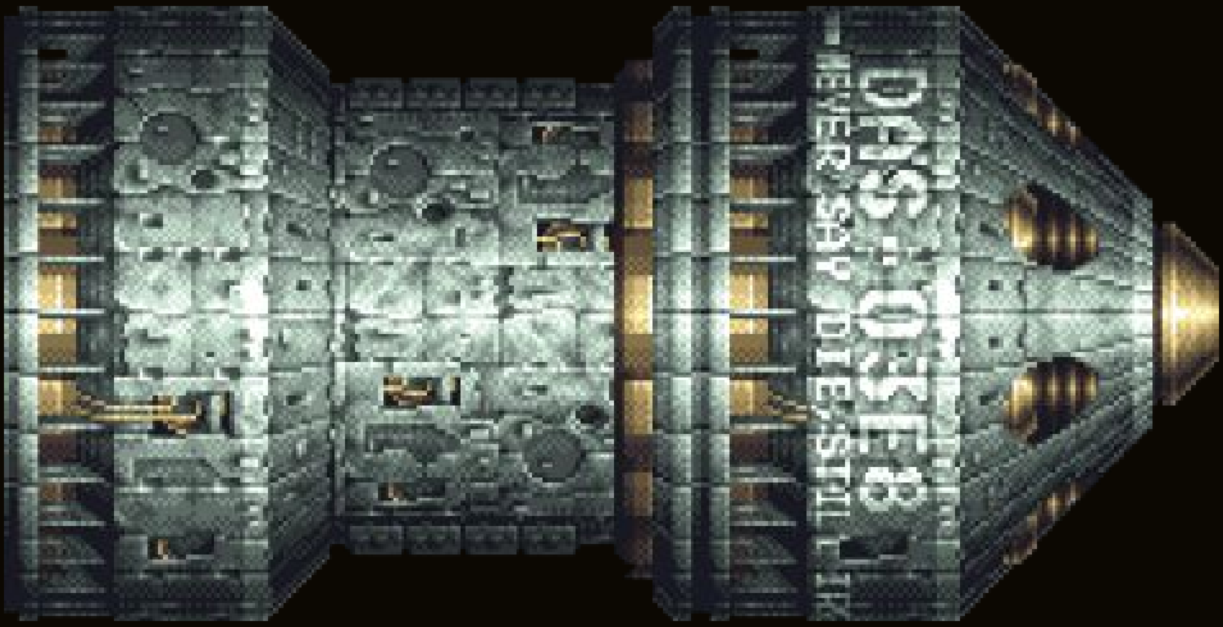
Stage 4 mid-boss



Stage 2 boss

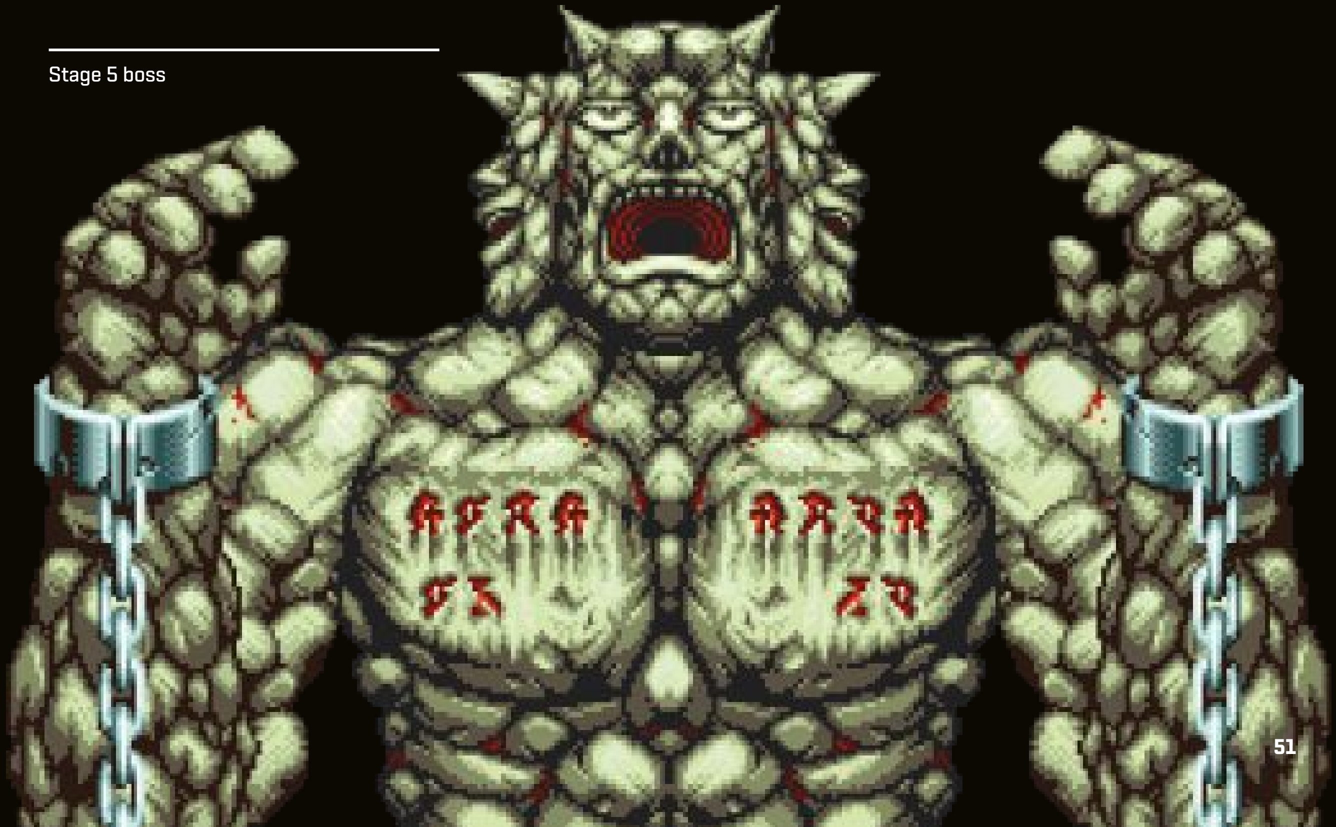


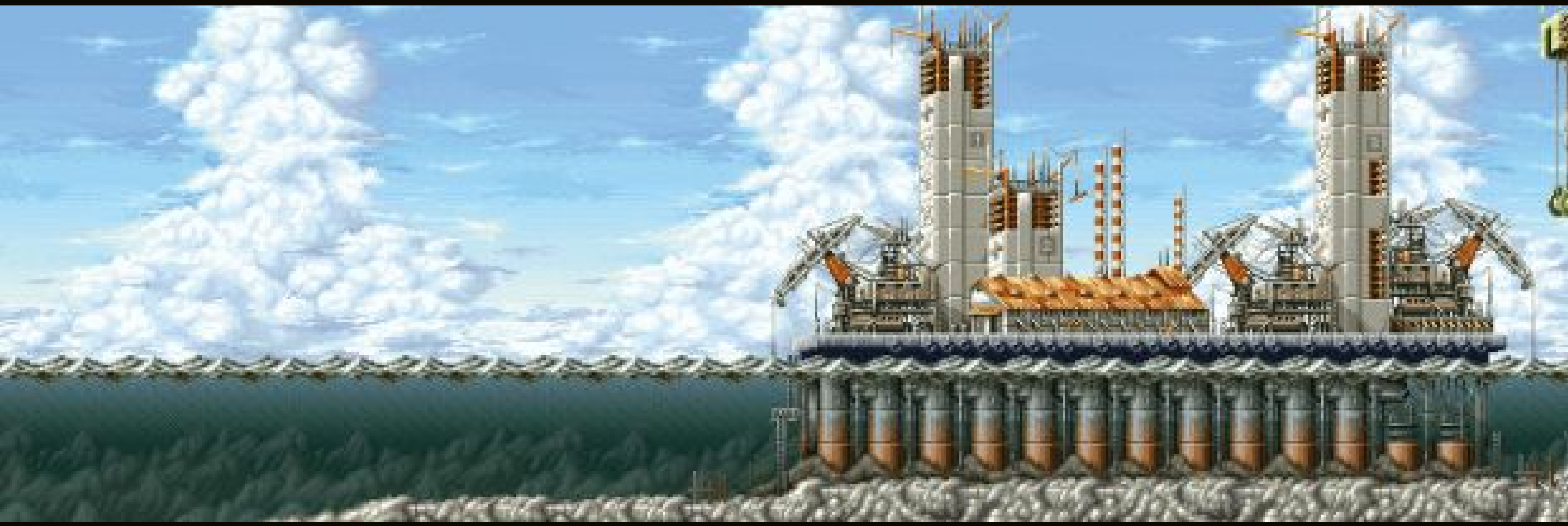
Stage 3 boss

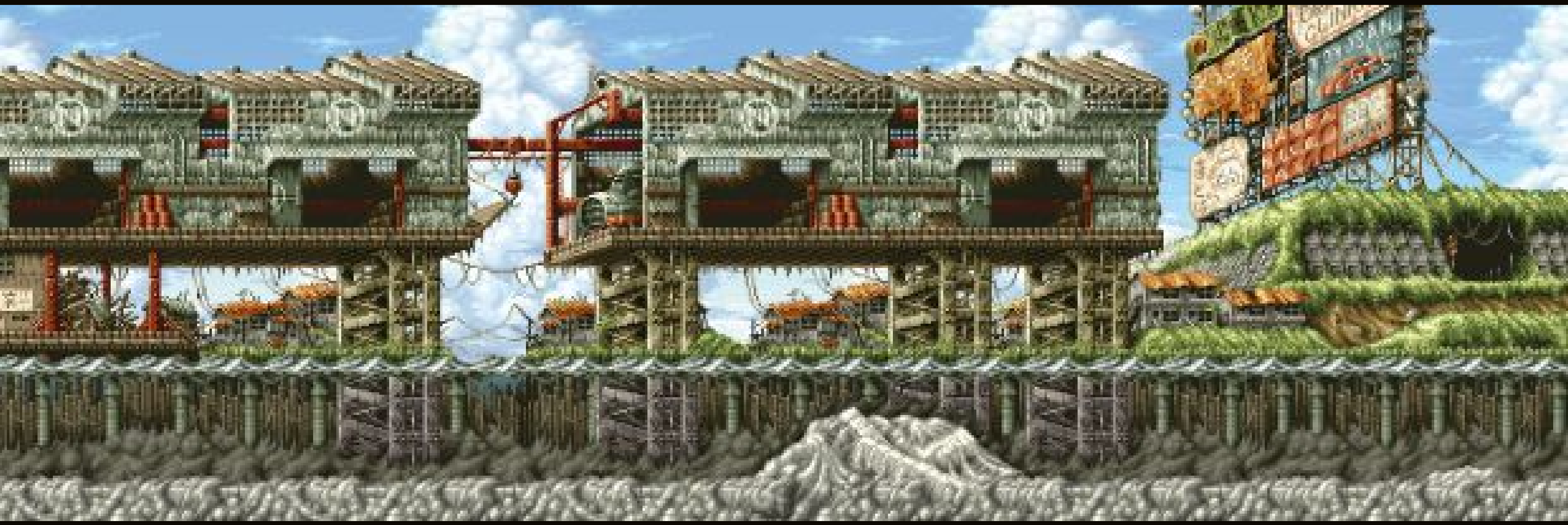

DAS·OSE8
NEVER SAY DIE STIL

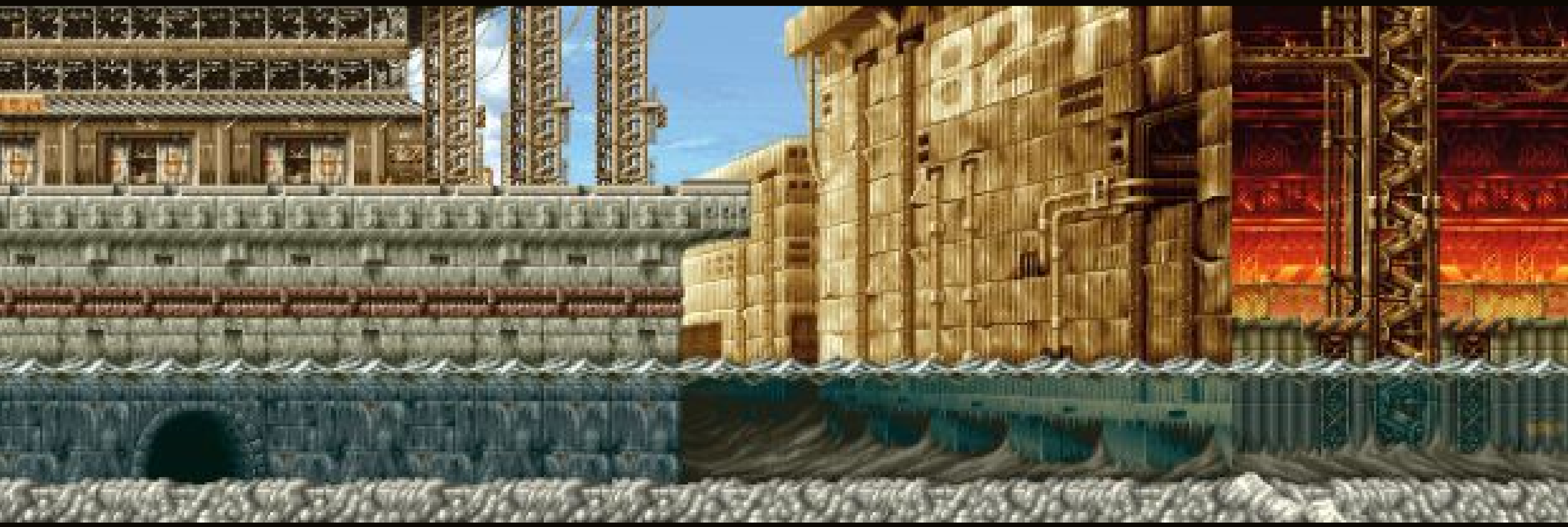
Stage 6 boss

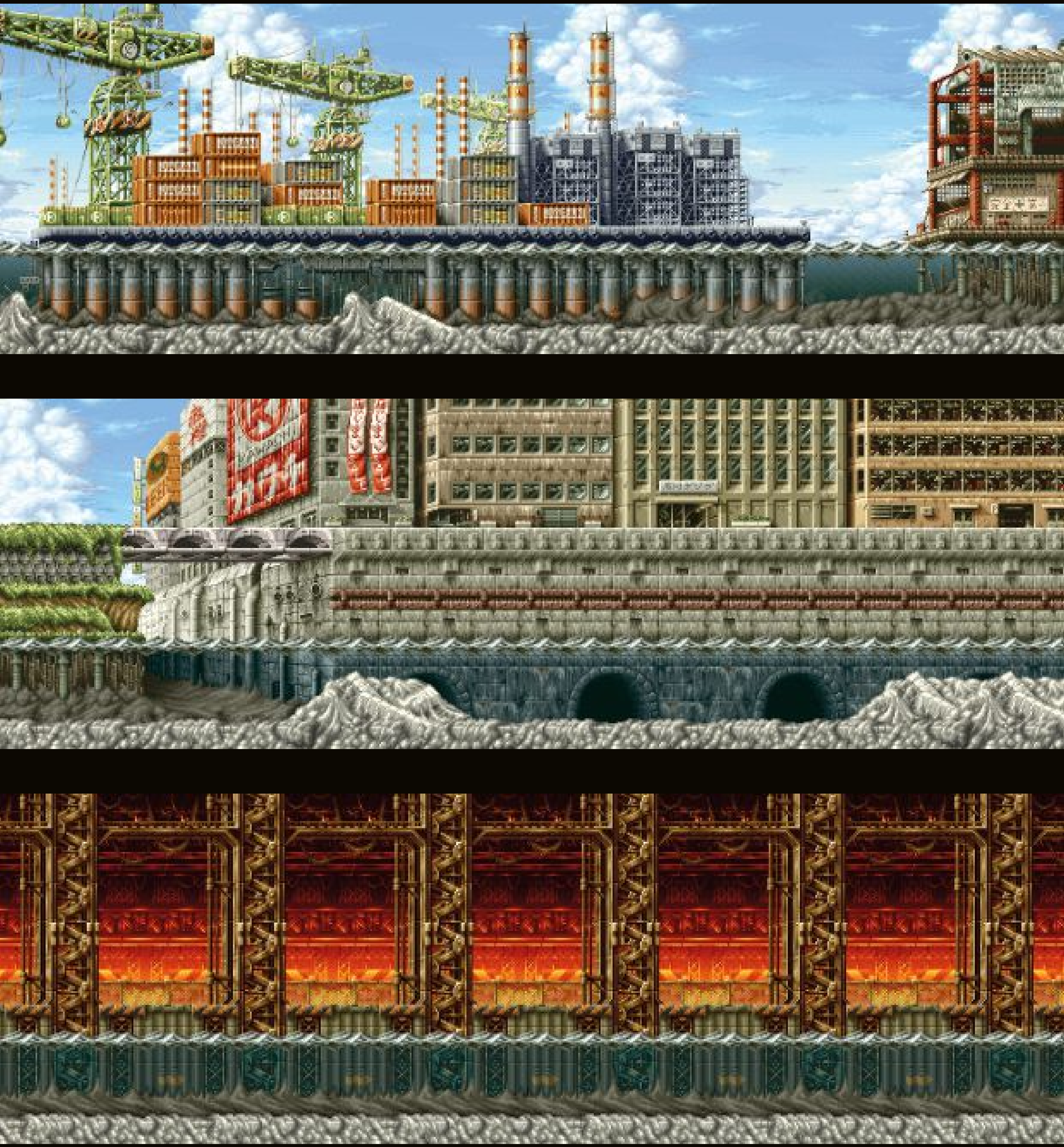
Stage 5 boss











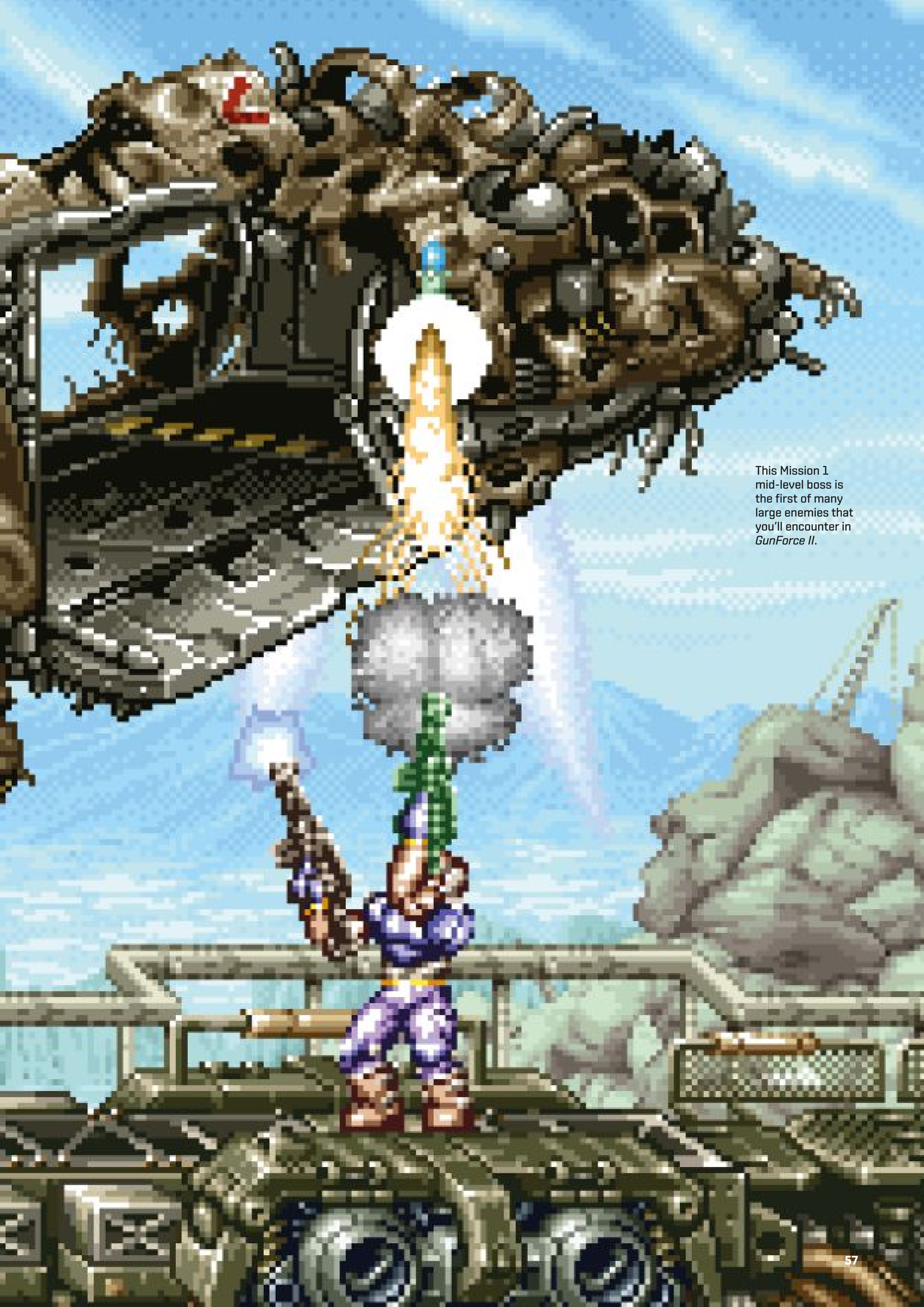
Level map for Stage 3 – The Channel. Just one example of the game's incredibly detailed background art, which starts inside a shipyard and ends in a steelworks where you face the deadly end-of-level boss.

First released: 1994 / Players: 2 / Developed by: Irem / Published by: Irem

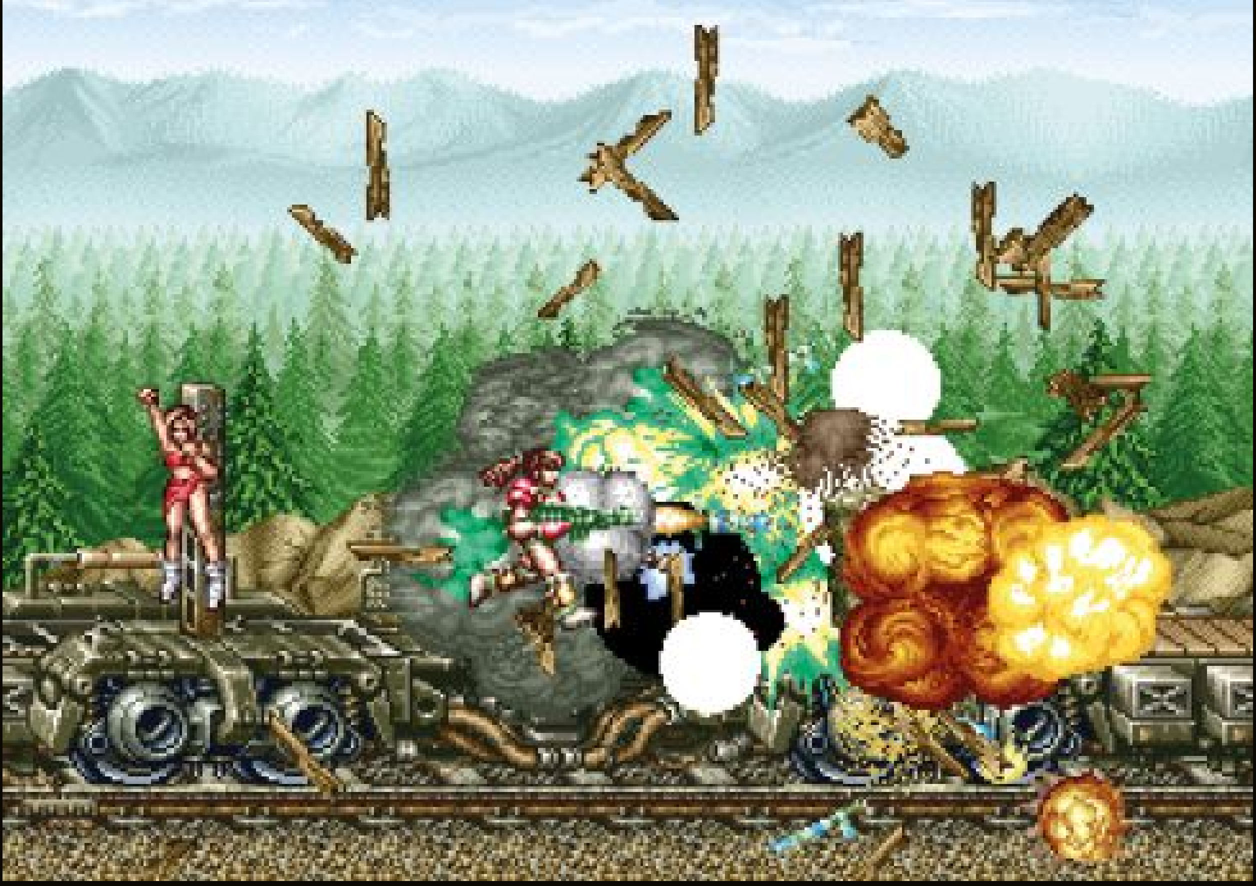
GUN
FORCE
II

One of Irem's final arcade games before the company withdrew from the coin-op sector, *GunForce II* – or *Geo Storm* as it is known in Japan – is regarded by many as the forerunner of *Metal Slug*. It shared the same 'run-and-gun' gameplay and visual style, and it was even possible to pilot vehicles at certain points. The core team behind the design and development of *GunForce II* would leave Irem to establish Nazca Corporation shortly after its release to begin work on *Metal Slug*.

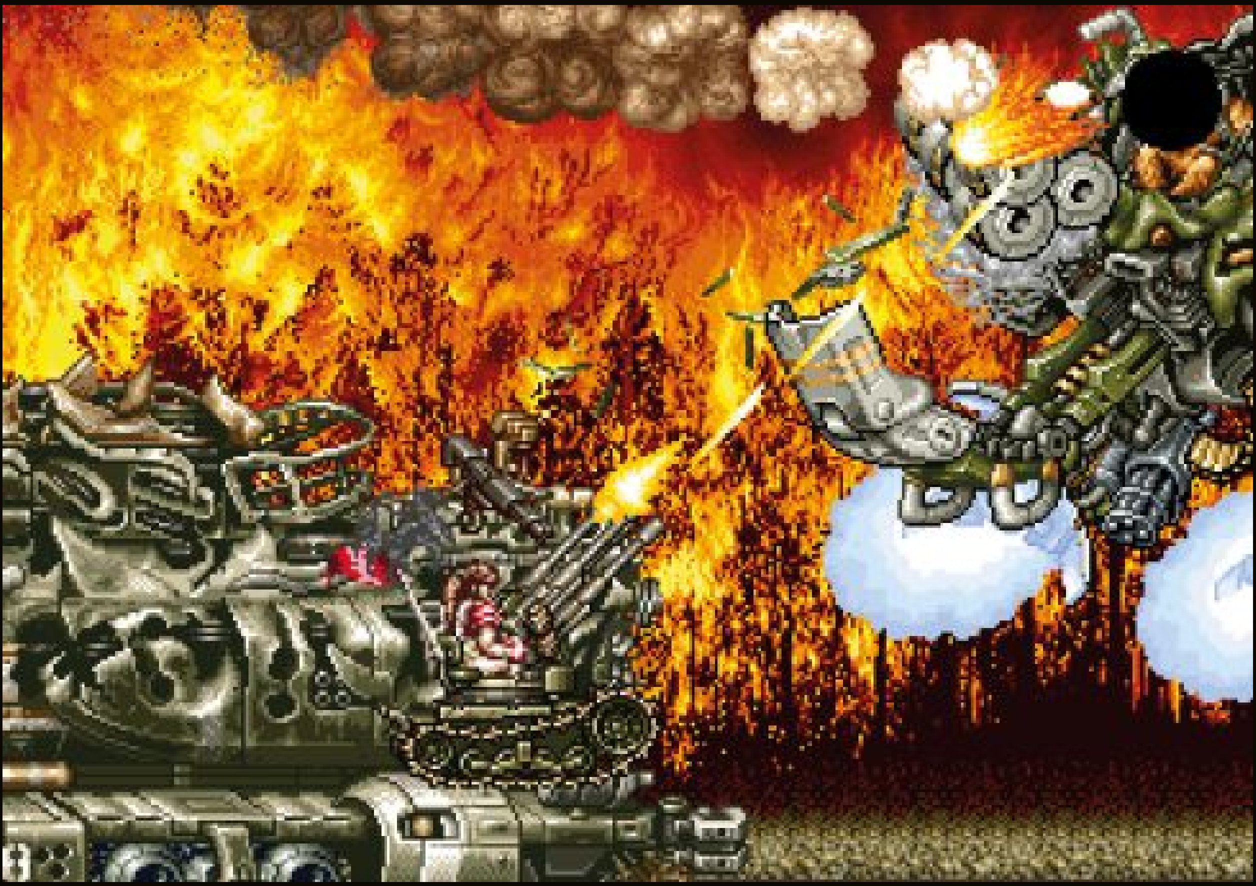
GunForce II and *Geo Storm* are trademarks of Irem Software Engineering Inc.



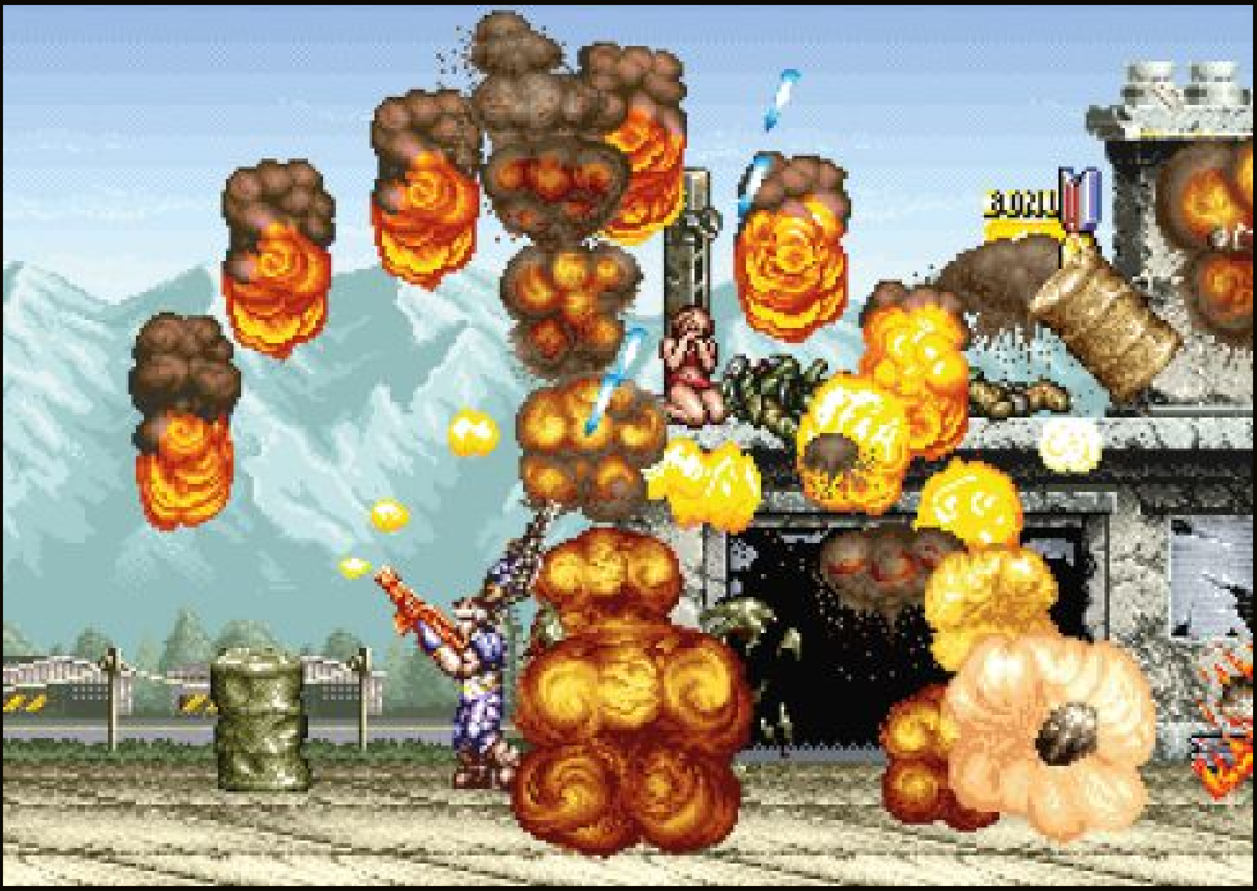
This Mission 1 mid-level boss is the first of many large enemies that you'll encounter in *GunForce II*.



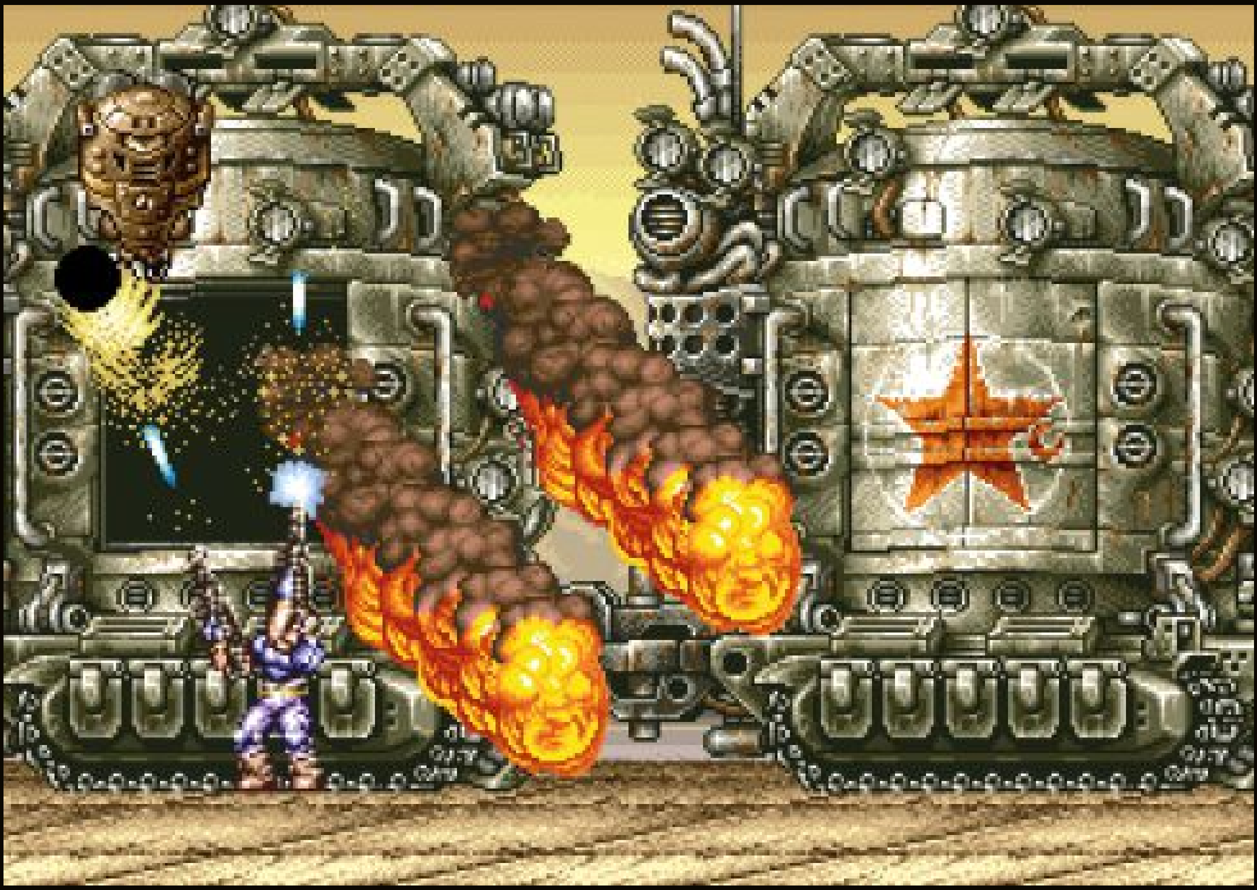
Similar to *Metal Slug*, you're tasked with rescuing hostages – although, in *GunForce II,* they're female, as opposed to Metal Slug's male POWs.



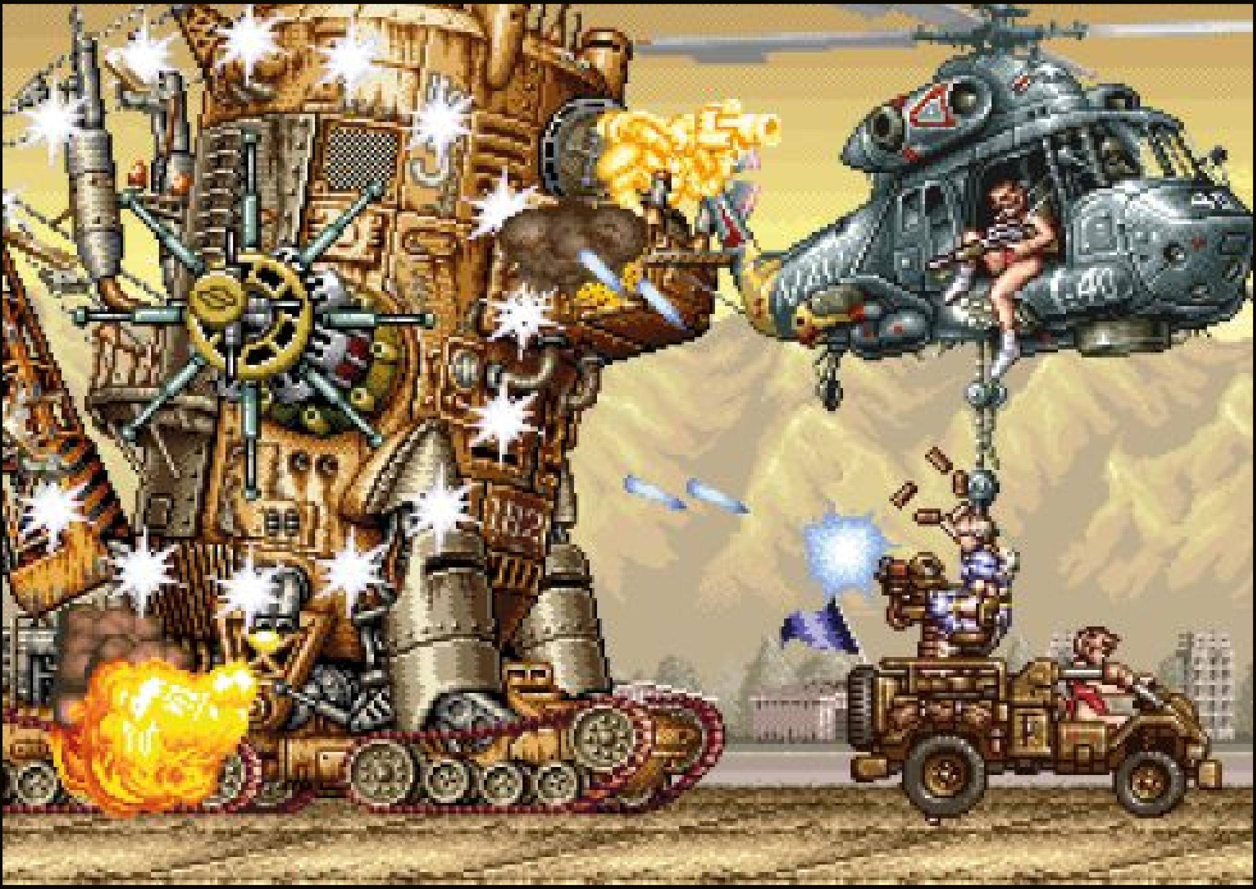
The first main boss is a huge flying mech which packs some heavy artillery. Luckily, you can hop into the nearby tank, which makes things much easier.



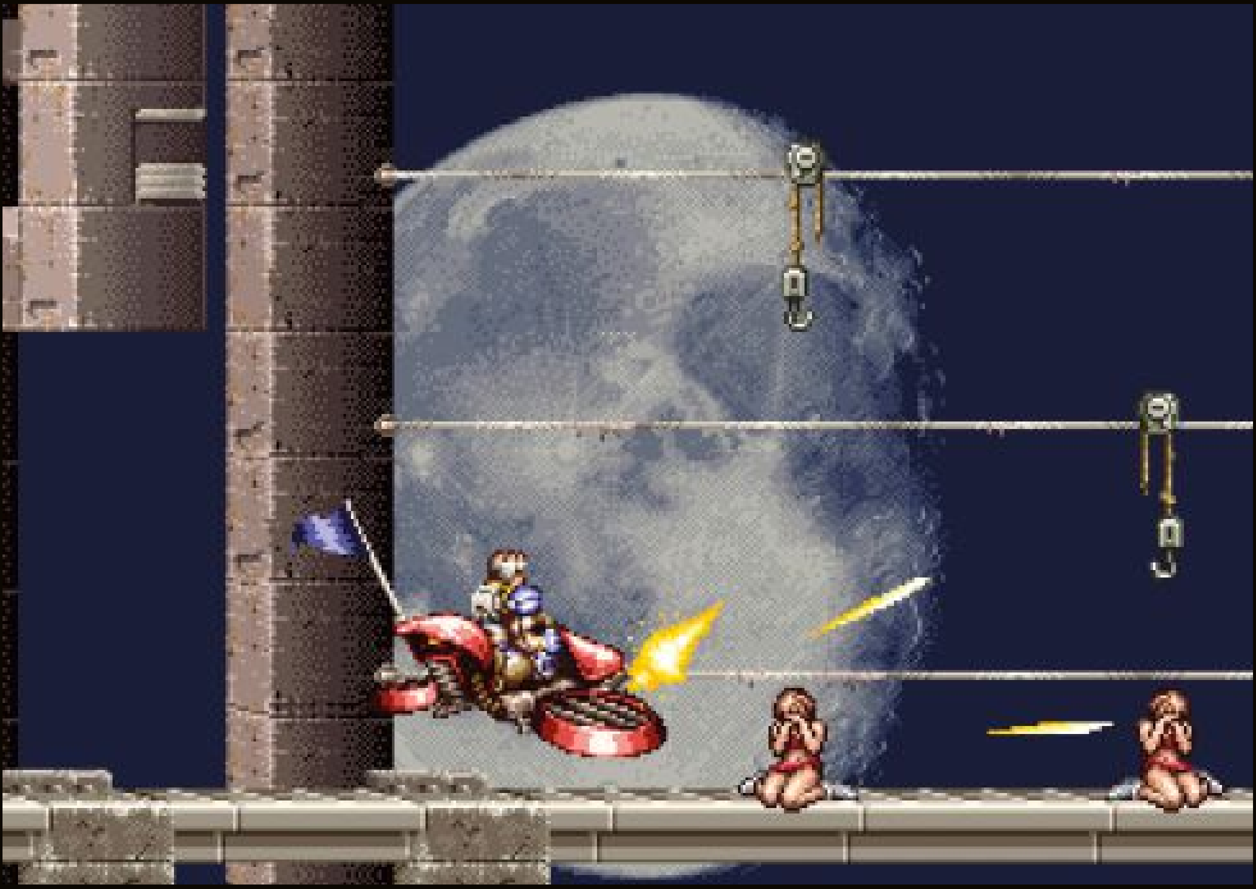
One of *GunForce II*'s most iconic features is that you can fire two guns at the same time, both at different angles.



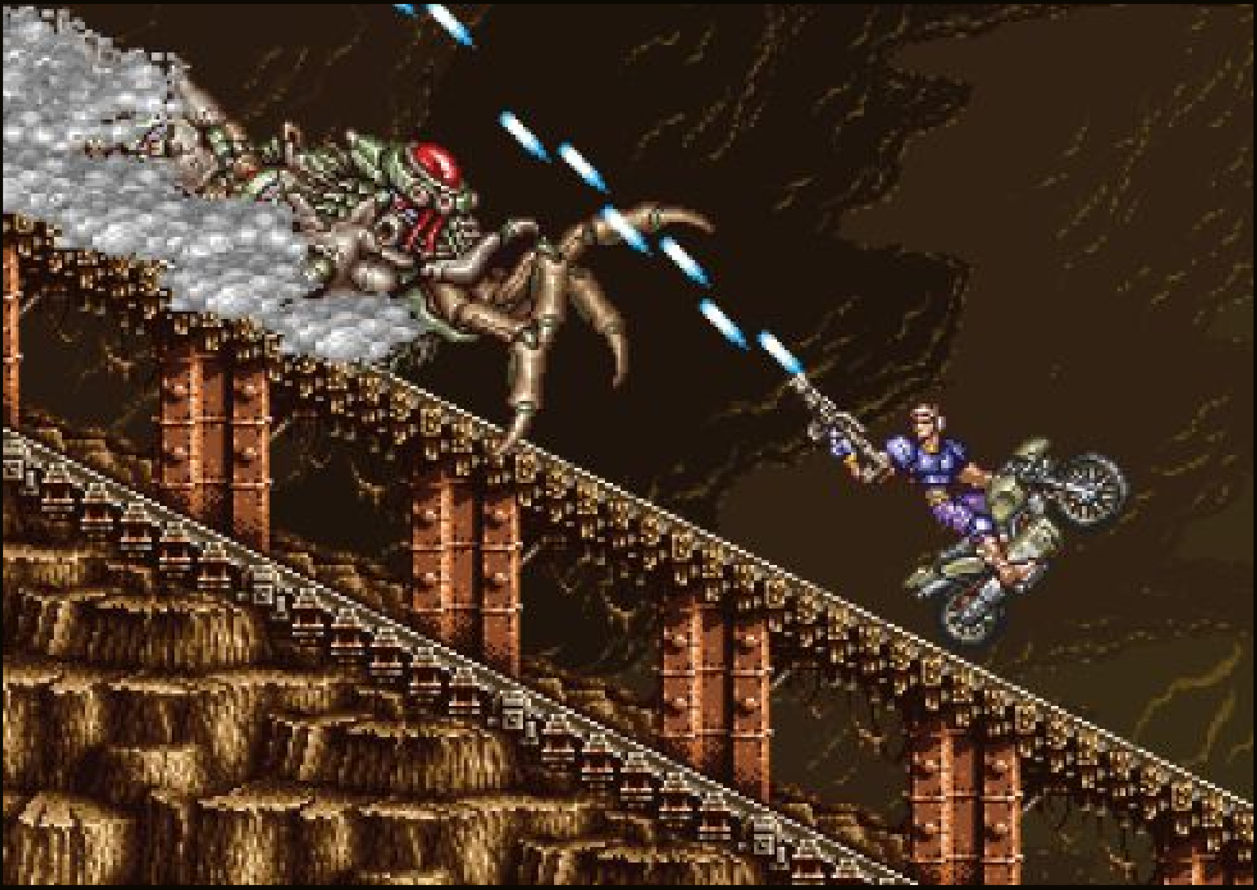
The huge chain of D.A.S. tanks from the second mission is full of enemy soldiers and droids that must be defeated before moving on to the end-of-level boss.



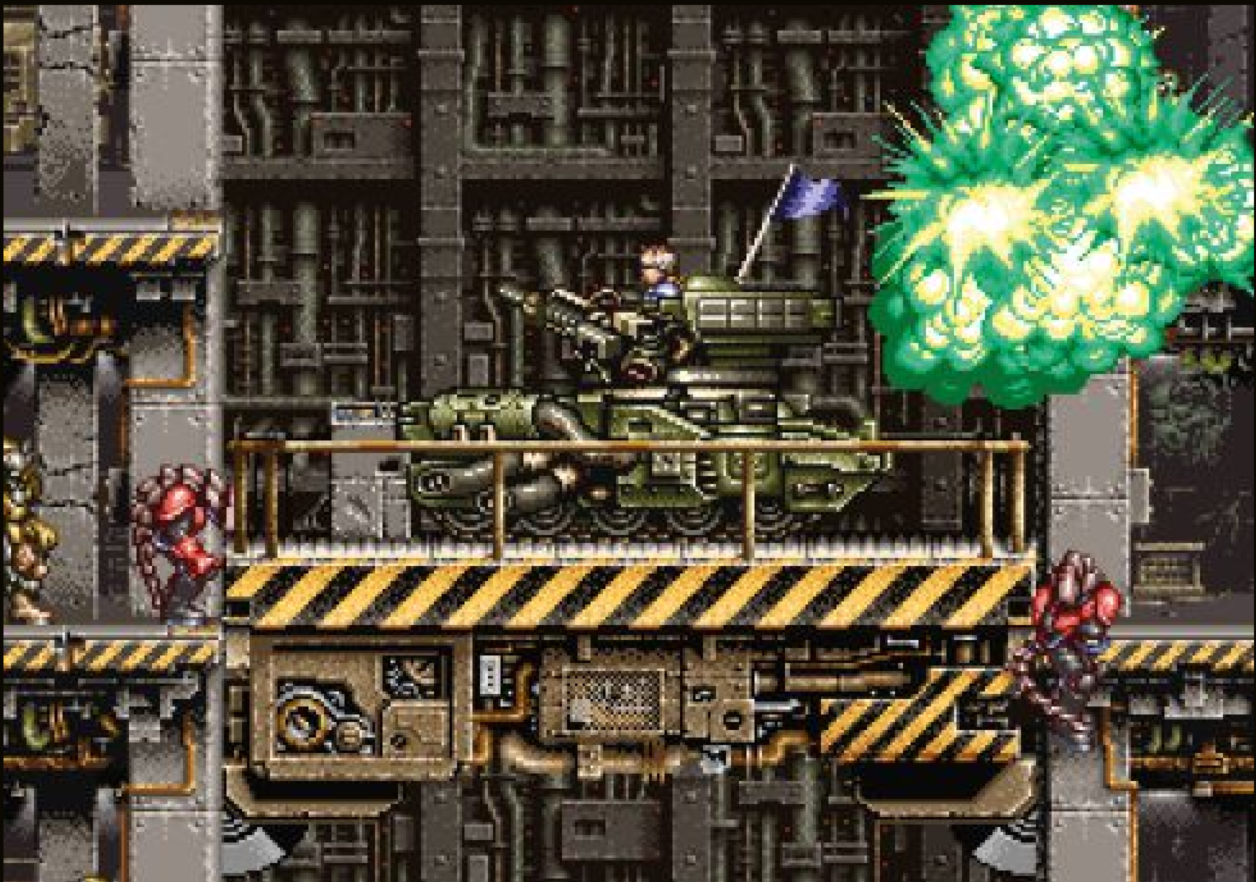
The machine gun on the back of this Jeep is handy when it comes to defeating the second mission boss. You also have added help from Lei in a helicopter.



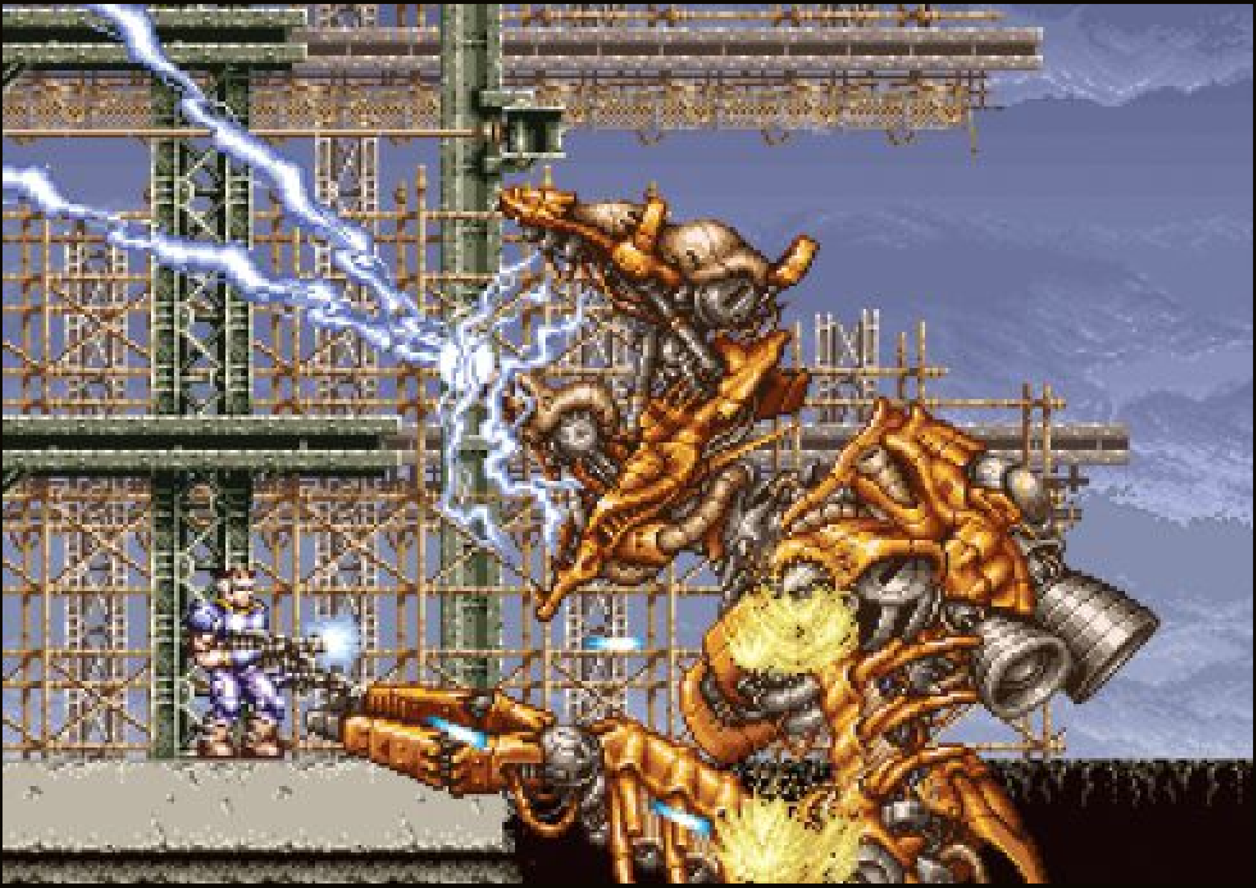
Shoot an enemy in an 'Attack craft' and you get to ride it and make use of its powerful machine gun; it's one of many vehicles that can be used during the game.



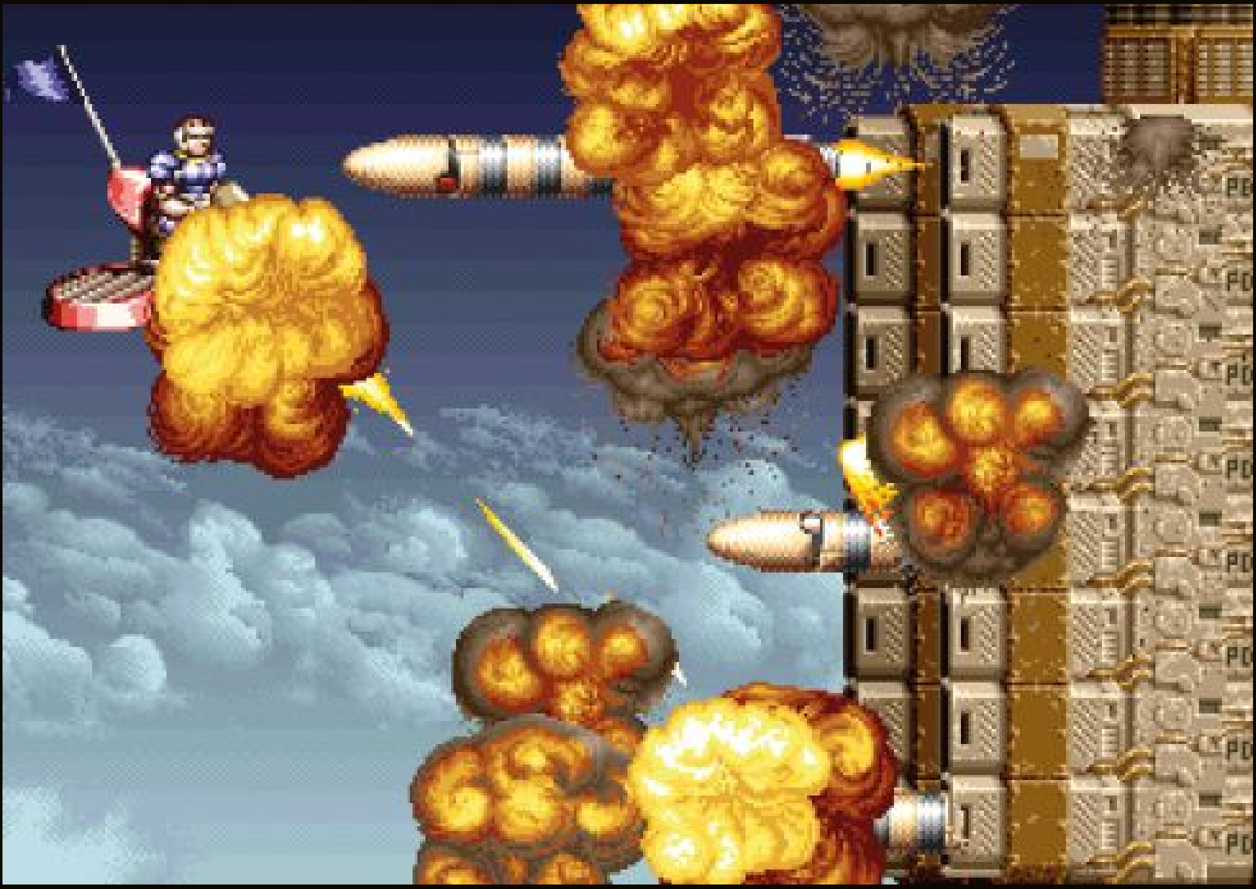
This is an action-packed scene in which you ride a motorcycle down a slope whilst being chased by a mechanical millipede-type creature.



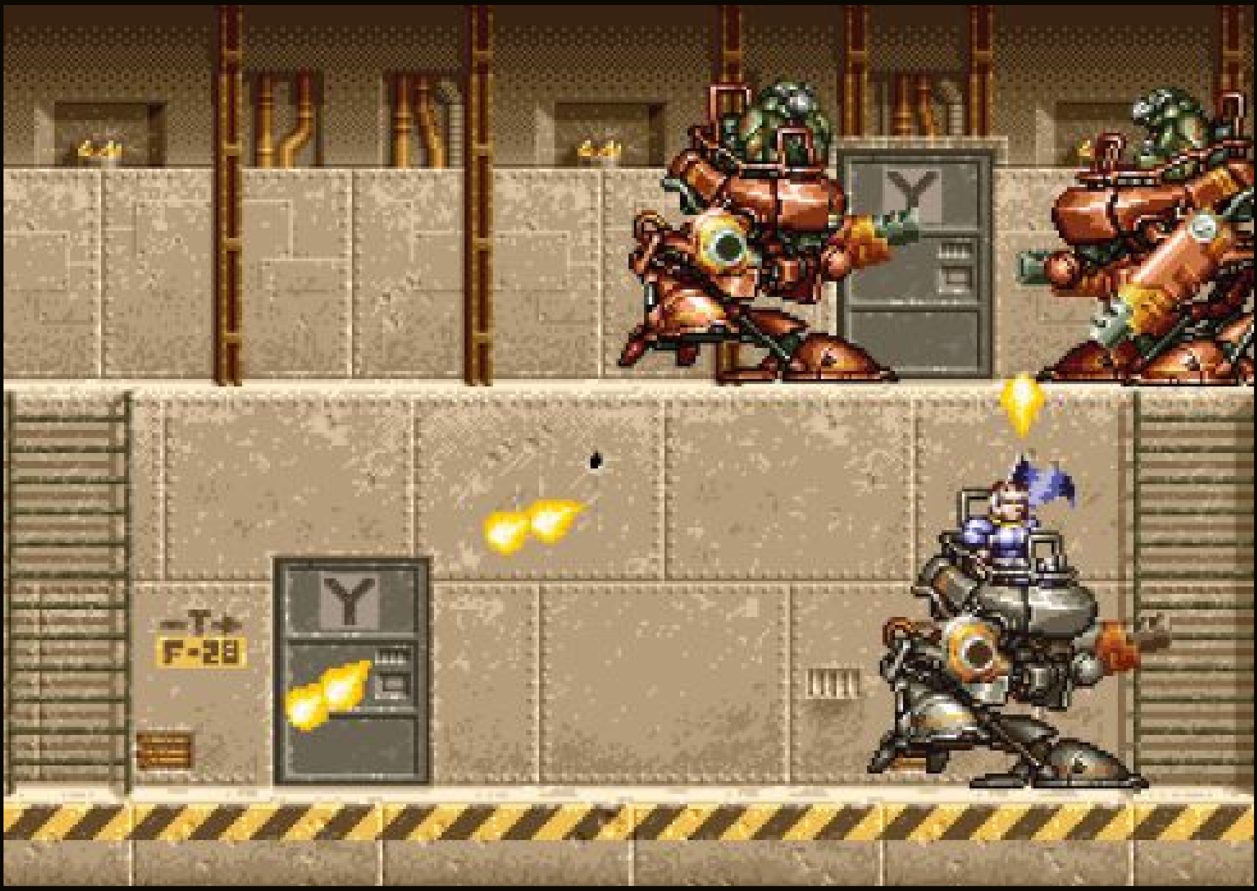
Be sure to cause maximum damage while riding in this tank.
The green explosions suggest it fires some kind of chemical weapon.



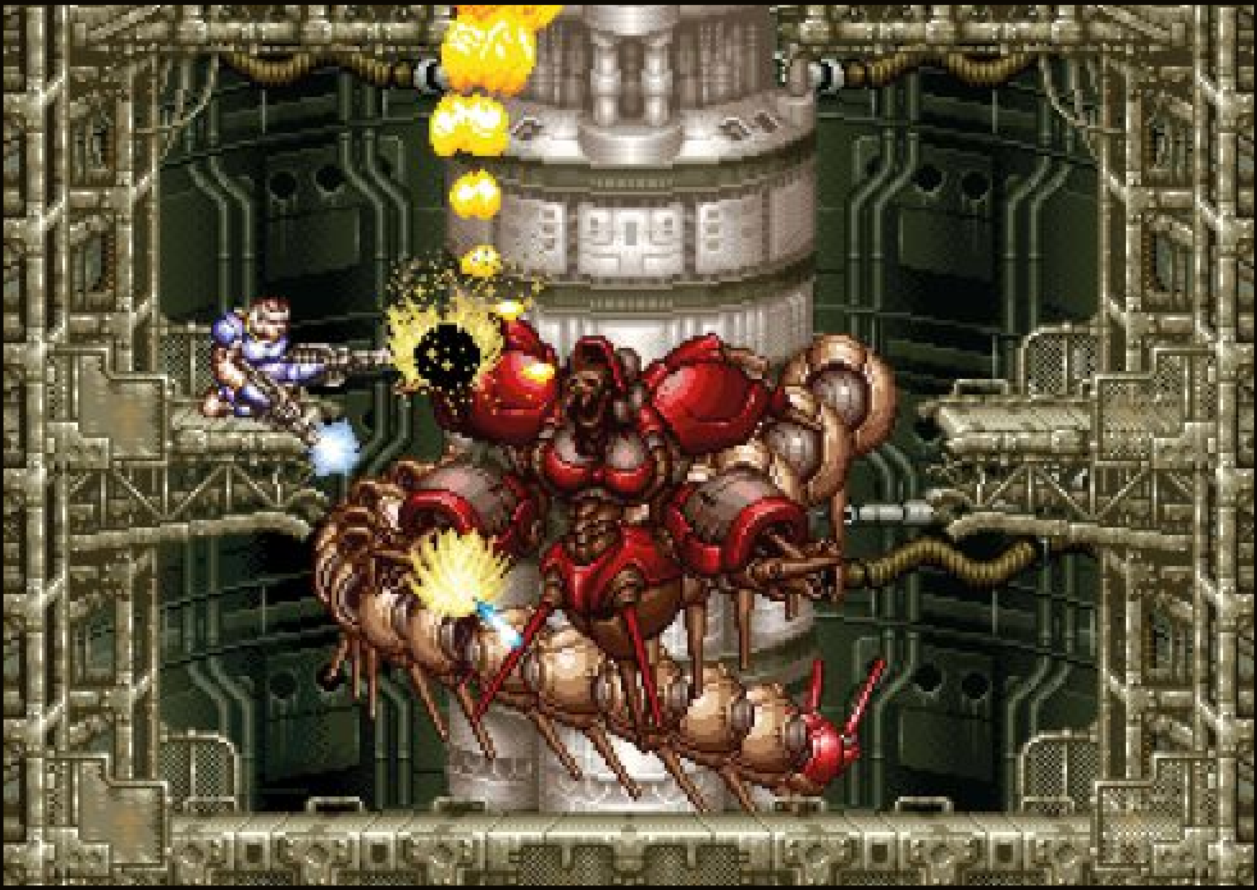
This is the fourth mission boss, whose attacks include swiping with its hydraulic claw and releasing laser bombs from its mouth.



The fifth mission begins with you on a Flying Attack craft, having to dodge a barrage of missiles shooting towards you.

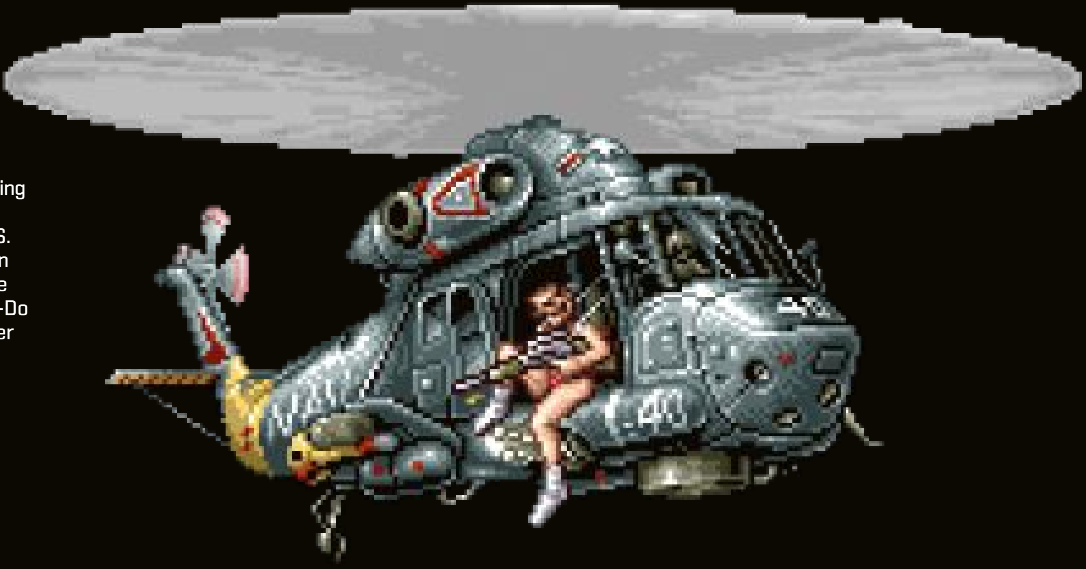


Sharing some similarities with *Robocop*'s ED-209, this rideable mech has a powerful cannon that can be fired in eight directions. It also offers good protection from enemy fire.

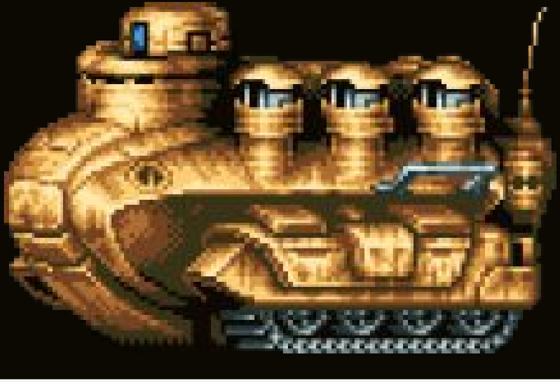


The final boss battle takes place within a missile silo. Contrary to how menacing it looks, it's pretty easy to beat this foe once you learn the attack patterns.

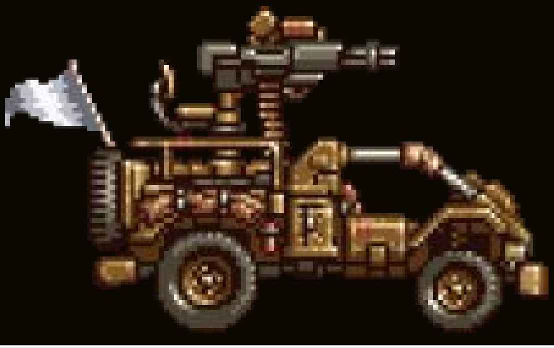
A selection of sprites from *GunForce II*, including bosses, vehicles and the insanely huge D.A.S. tanks. The helicopter, in particular, shares some similarities with the Hi-Do gunship that would later appear in *Metal Slug*.



Helicopter

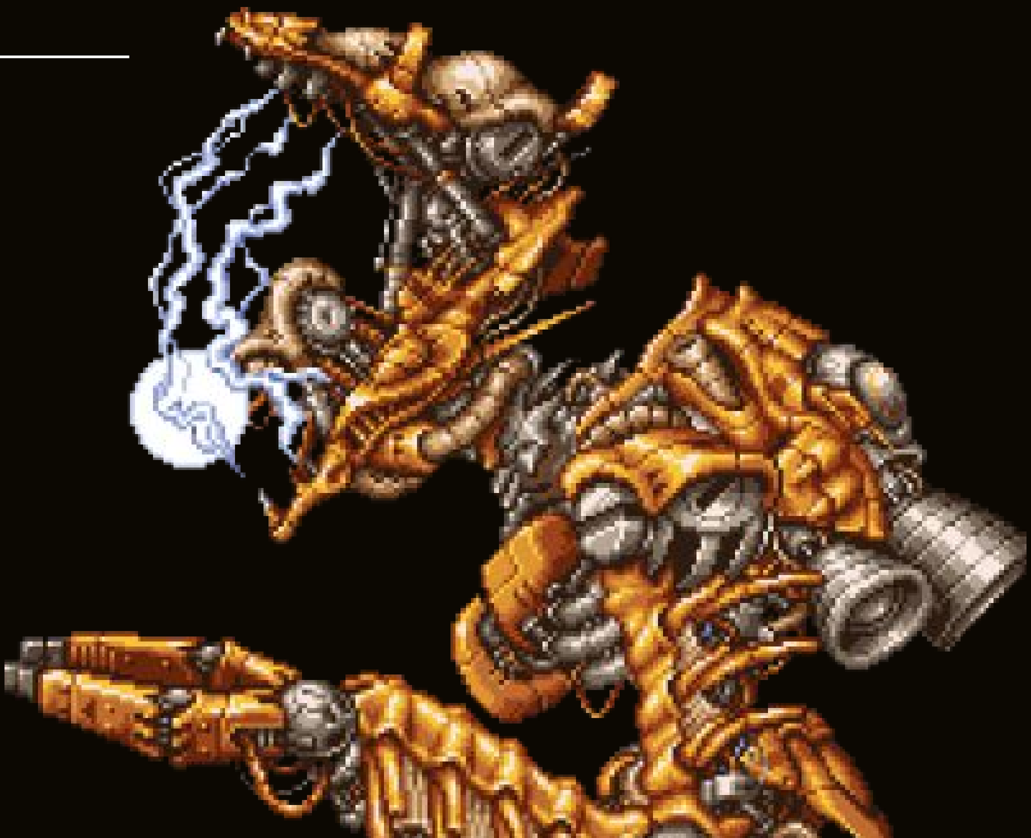


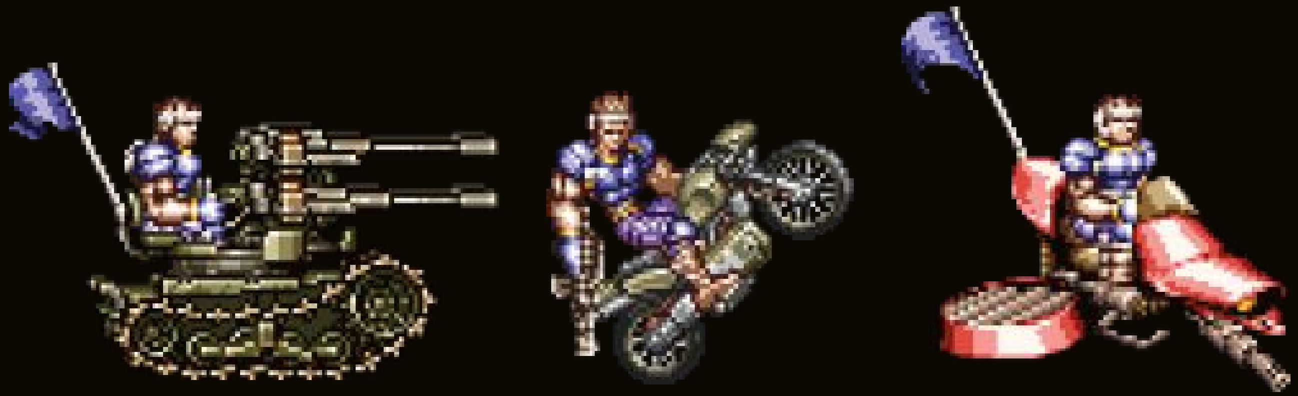
Submarine tank



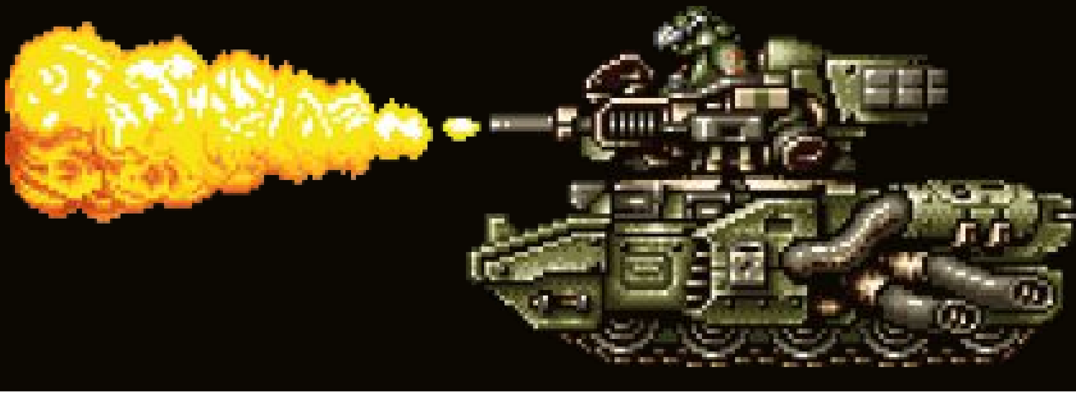
Jeep

Mission 4 boss

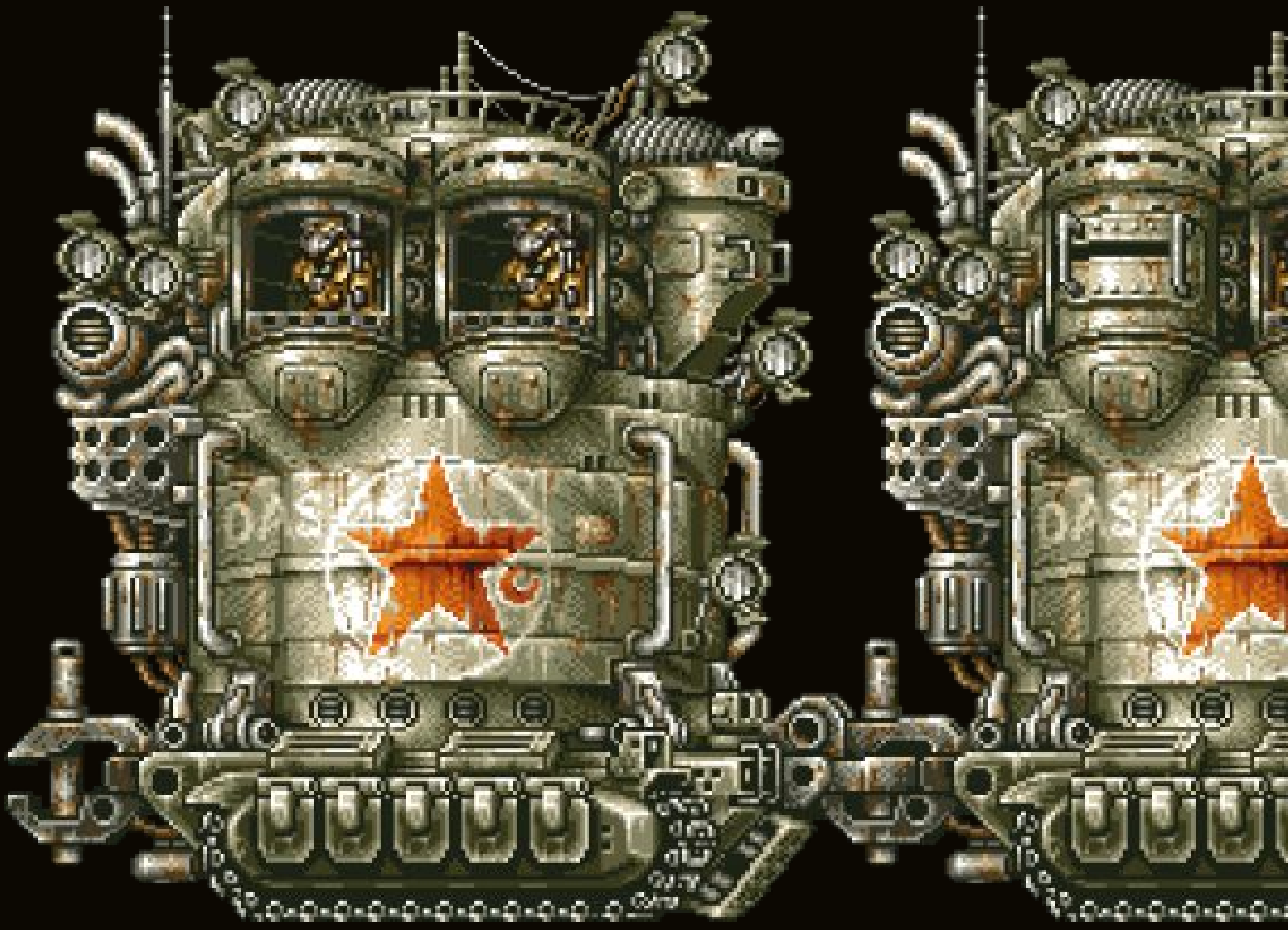




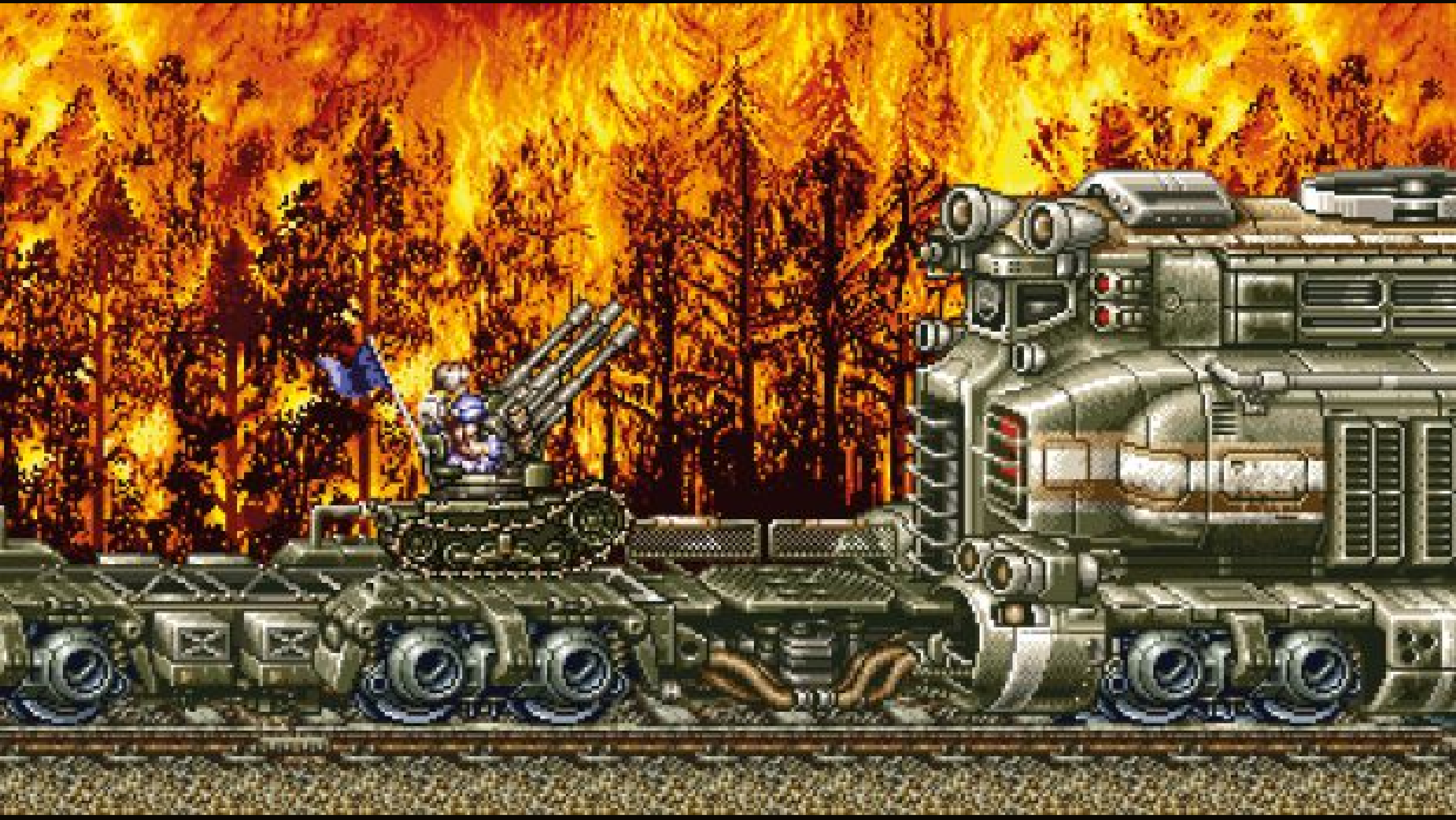
Various player vehicles

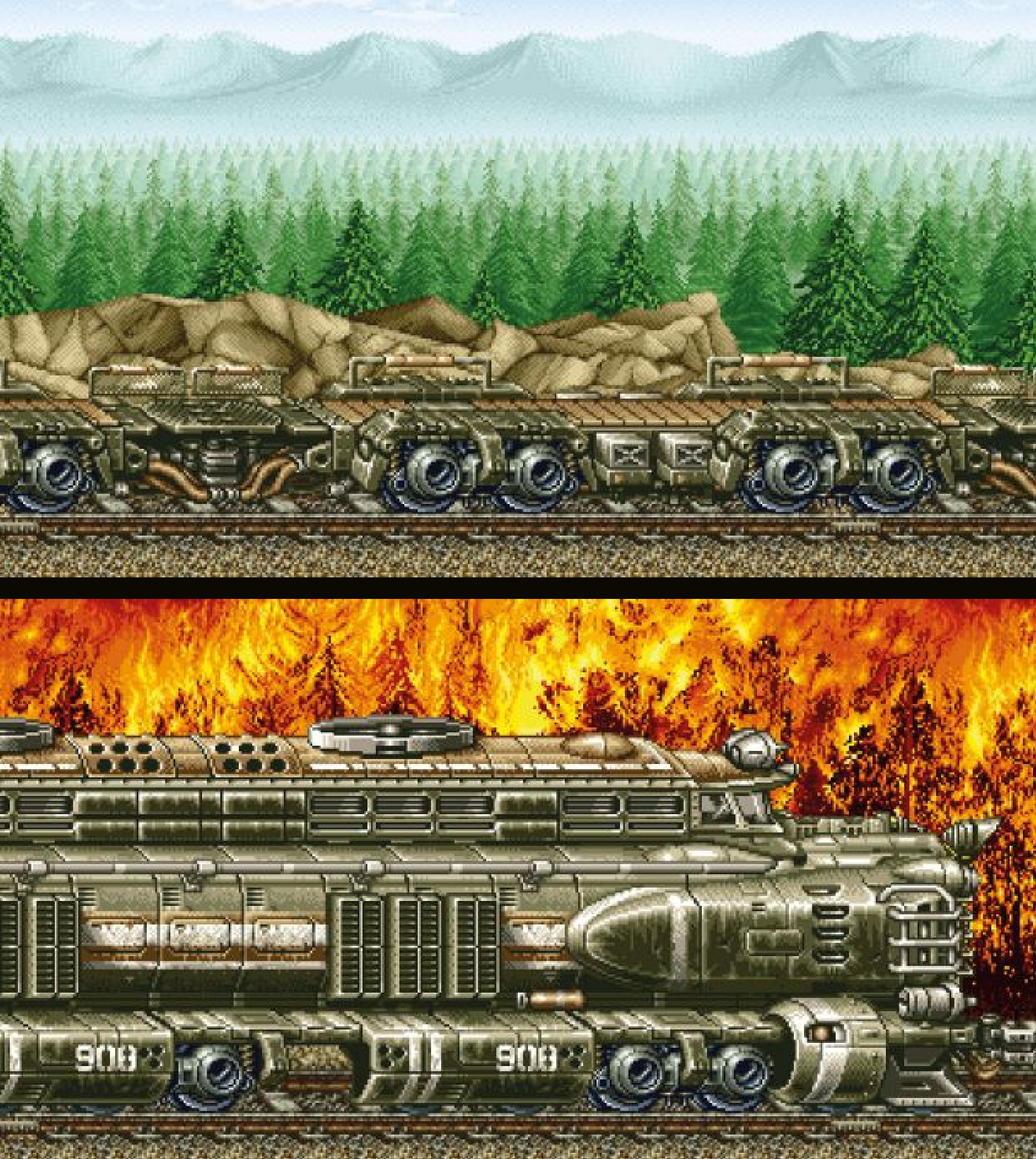


Flamethrower tank



D.A.S. tanks





This section of the first mission level map features some painstakingly detailed pixel art and smooth animation. The landscape starts as green and idyllic but ends up turning into an apocalyptic inferno by the time you face the end-of-level boss.

GAMES

96–09

In 1994, the team at Irem that worked on the likes of *In the Hunt*, *GunForce II*, *Air Duel* and *Undercover Cops* left the company and formed Nazca Corporation with the intention of creating software for SNK's NEOGEO platform. One of Nazca's early hits was *Neo Turf Masters* (known as *Big Tournament Golf* in Japan), but its breakout hit was 1996's *Metal Slug: Super Vehicle-001*. Nazca was absorbed into SNK shortly after, and would go on to create several Metal Slug sequels. During this period, the franchise also expanded to portable formats, including the NEOGEO Pocket Color and Game Boy Advance.

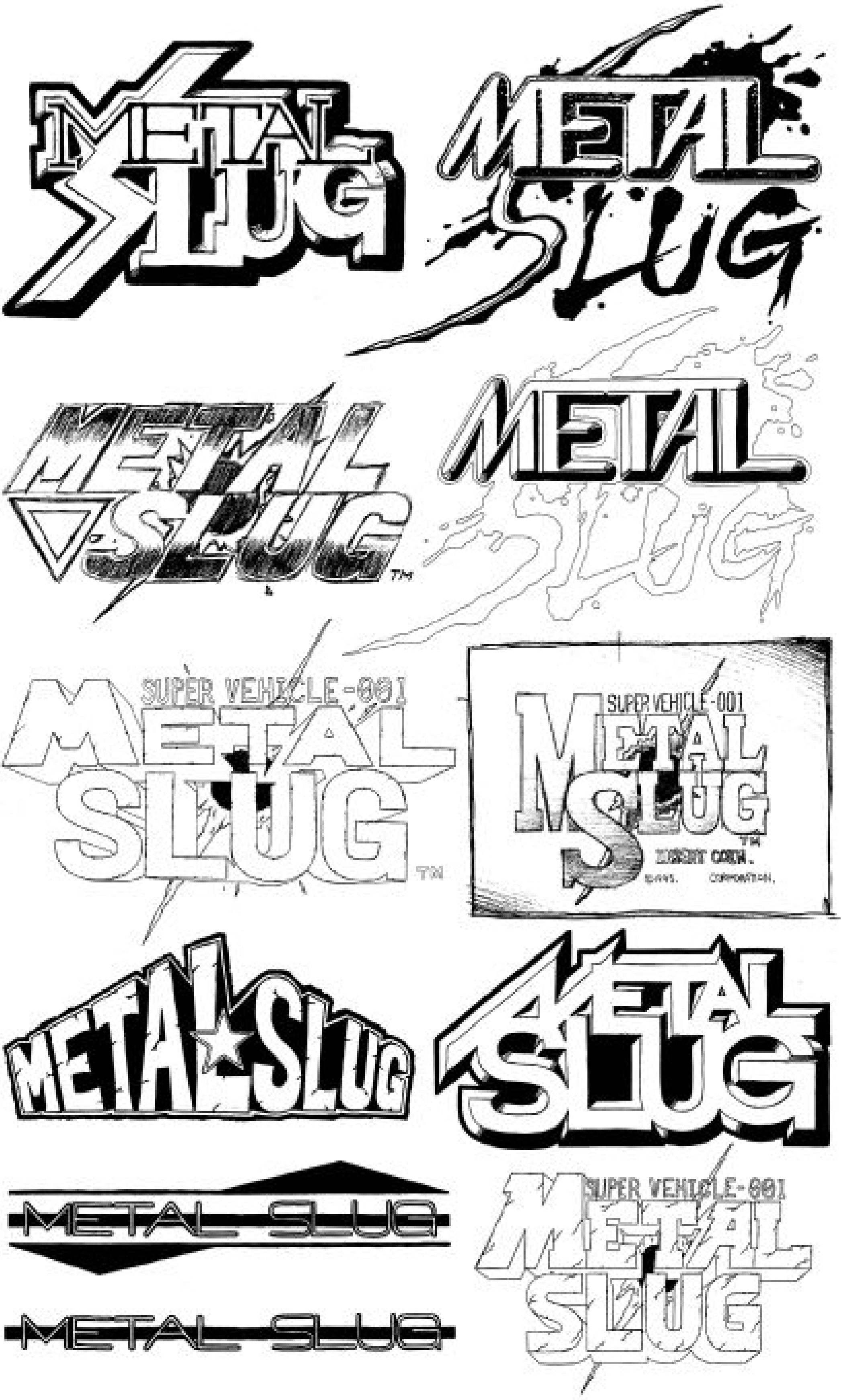
First released: 1996 / Players: 2 / Developed by: Nazca / Published by: SNK

SUPER VEHICLE-001
METAL SLUG

ANDROID ARC IOS NG NGCD
SWITCH PS PS3 PS4 PSP
VITA SATURN WII PC ONE

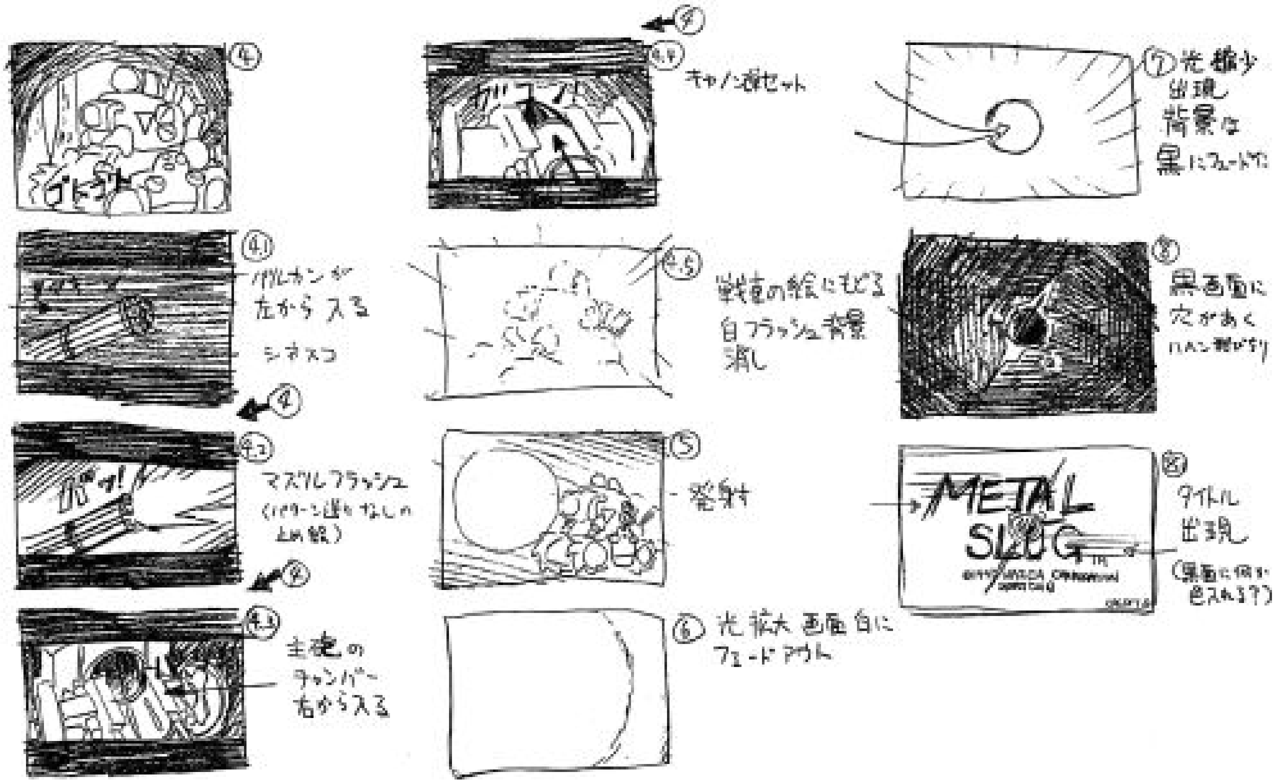
Released in 1996, at a time when the world was seemingly obsessed with 3D visuals, *Metal Slug* (or to give it it's full title – *Metal Slug: Super Vehicle-001*) was viewed by some as an oddity; a relic of an era of video games that was slowly but surely dying out. However, its fluid 2D visuals, tight gameplay and engaging sense of humour ensured success in the arcades, and ports to home consoles such as the SEGA Saturn and PlayStation (not to mention the inevitable NEOGEO AES release) granted the game an additional degree of fame. *Metal Slug* laid the foundations for a series which is now one of the most recognisable and famous in the world of arcade gaming.

A selection of logo designs for *Metal Slug*. The bottom right is the closest to the final design. It's notable that one option (two up from the bottom left) is quite similar to the logo for *In the Hunt*.

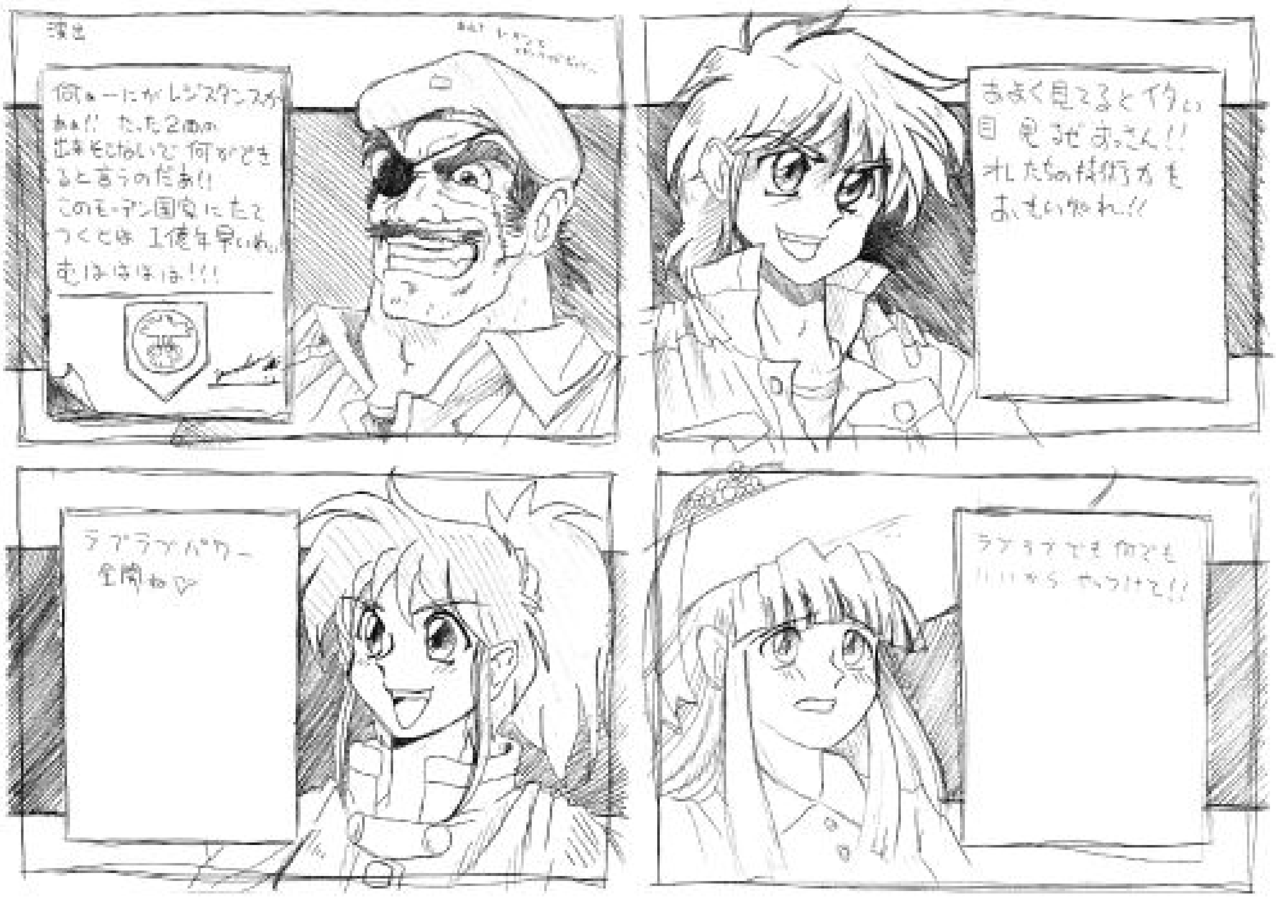


METAL SLUG
METAL SLUG
METAL SLUG
TM
METAL SLUG
SUPER VEHICLE-001
METAL SLUG
TM
SUPER VEHICLE-001
METAL SLUG
TM
©1995. CORPORATION.
METAL SLUG
METAL SLUG
METAL SLUG
METAL SLUG
SUPER VEHICLE-001
METAL SLUG

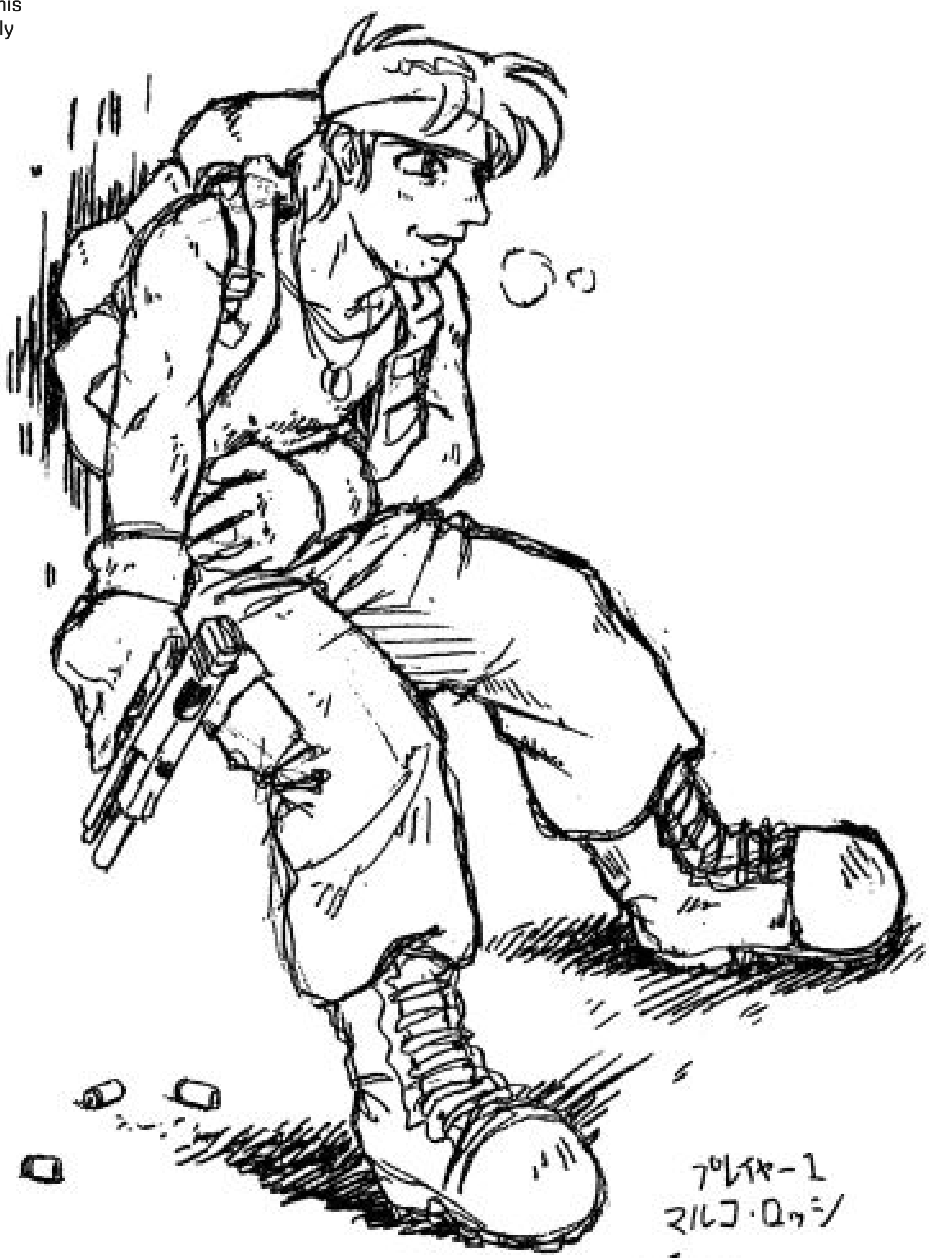
This storyboard for the intro sequence must have come quite early in development as it doesn't feature the final logo on the end slide.

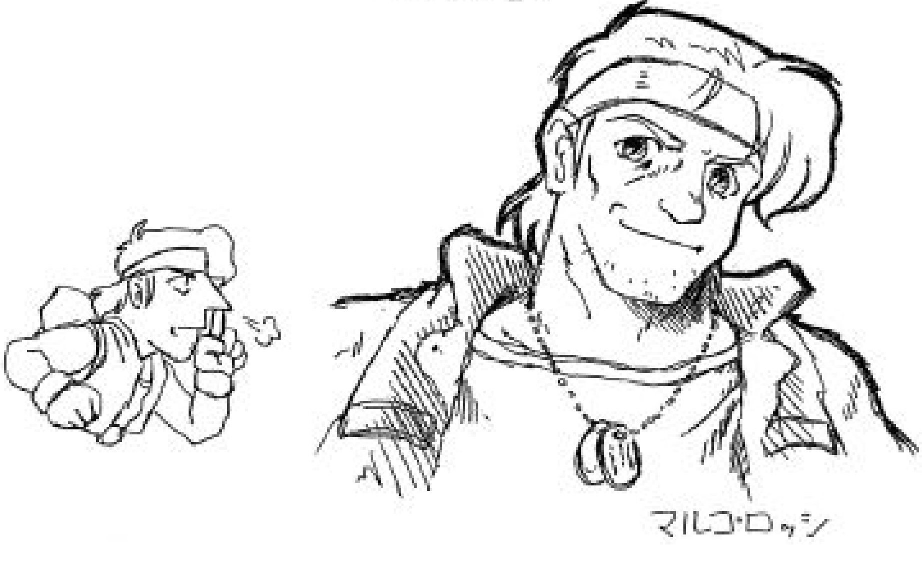

④
ゴトン
④.1 バルカンが左から入る
シネスコ
④.2 マズルフラッシュ（パターン選びなしの止め絵）
ボッ!
④.3 主砲のチャンバー右から入る
④.4 キャノン砲セット
ガコン
④.5 戦車の絵にもどる 白フラッシュ背景消し
⑤ 発射
⑥ 光拡大 画面白にフェードアウト
⑦ 光縮少 出現 背景は黒にフェードイン
⑧ 黒画面に穴があく ハレーション
METAL SLUG
⑨ タイトル出現（黒画面に何か色入れる？）

Concept art showing dialogue scenes between characters – in particular, Phil Gene (top left) and Michiko Nakajima (bottom left) – who were apparently the leads before Marco and Tarma took their places.

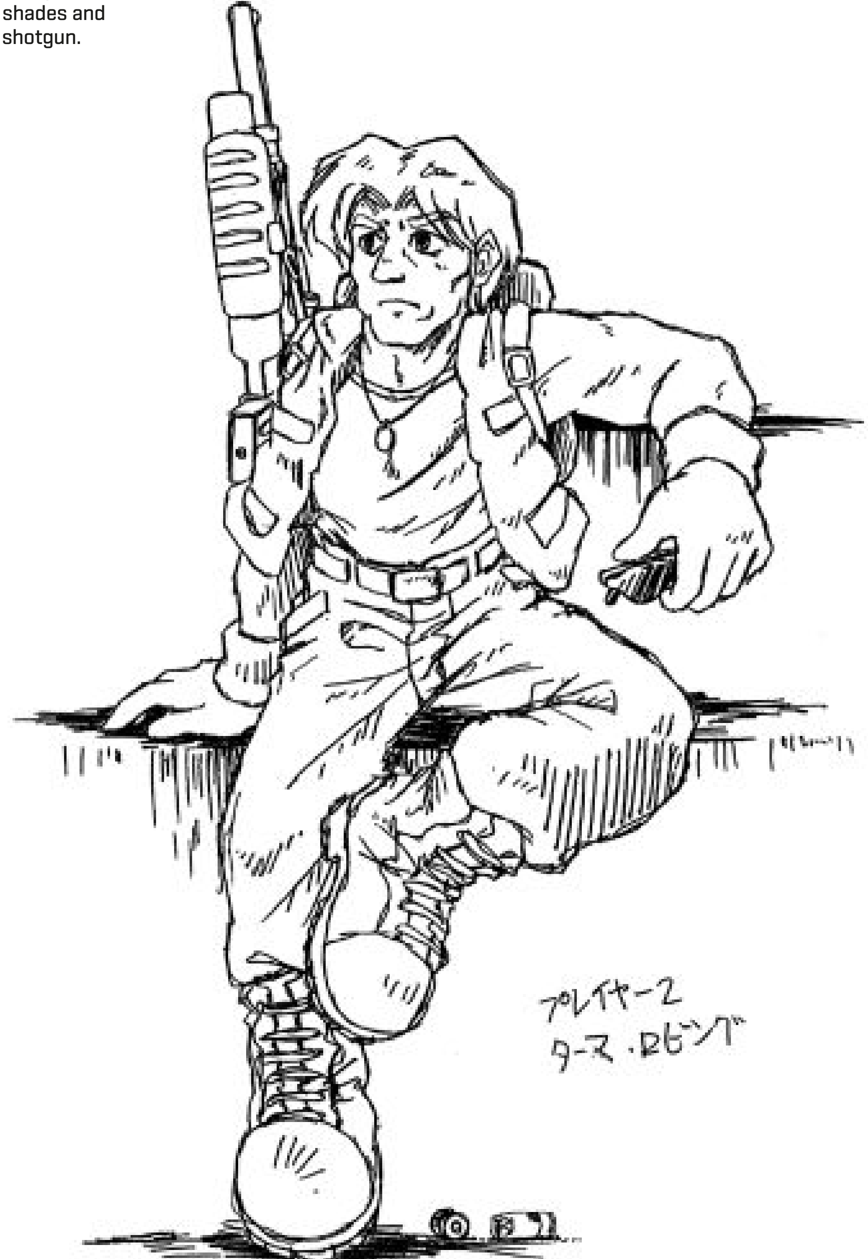

演出
何ぃーにがレジスタンスかぁ!! たった2両の出来もしないで何ができると言うのだぁ!! このモーデン国家にたてつくとは1億年早いわ!! むははははは!!!
あまく見てるとイタい目見るぜおっさん!! オレたちの技術力をおもいしれ!!
ラブラブパワー全開ね♡
ラブラブでも何でもいいからやっつけて!!

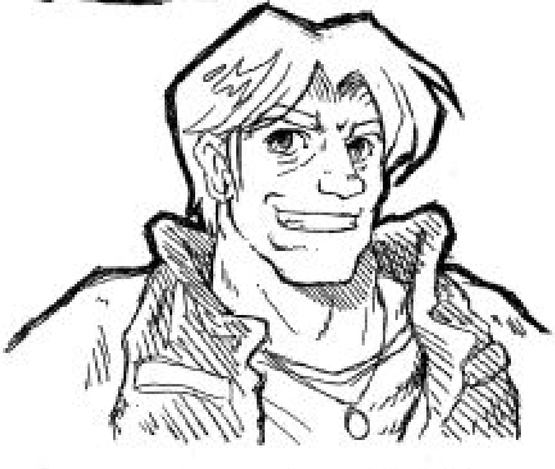
Concept art for Marco Rossi, arguably one of video gaming's most iconic characters. The main image below shows Marco catching his breath while clutching his trusty handgun, presumably after a hard-fought battle.


プレイヤー1
マルコ・ロッシ

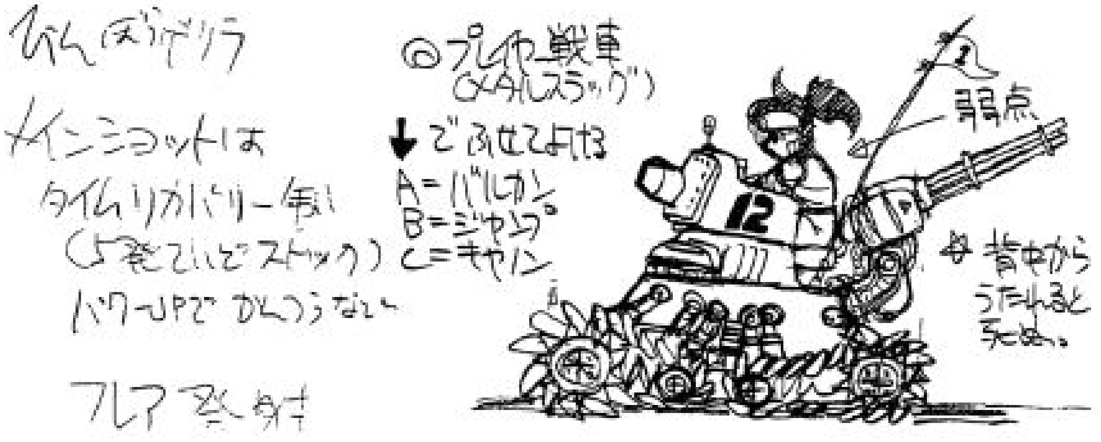


Various pieces of concept art for Marco's friend – and *Metal Slug*'s second playable character – Tarma Roving. Unlike Marco, he's looking effortlessly cool with his dark shades and pump-action shotgun.

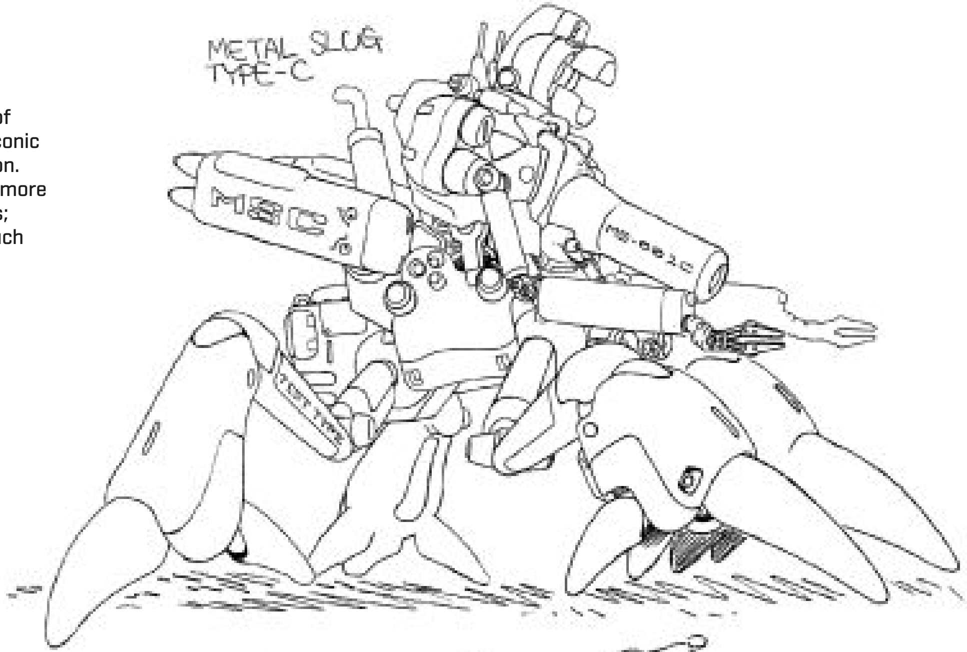

プレイヤー2
ターマ・ロビング

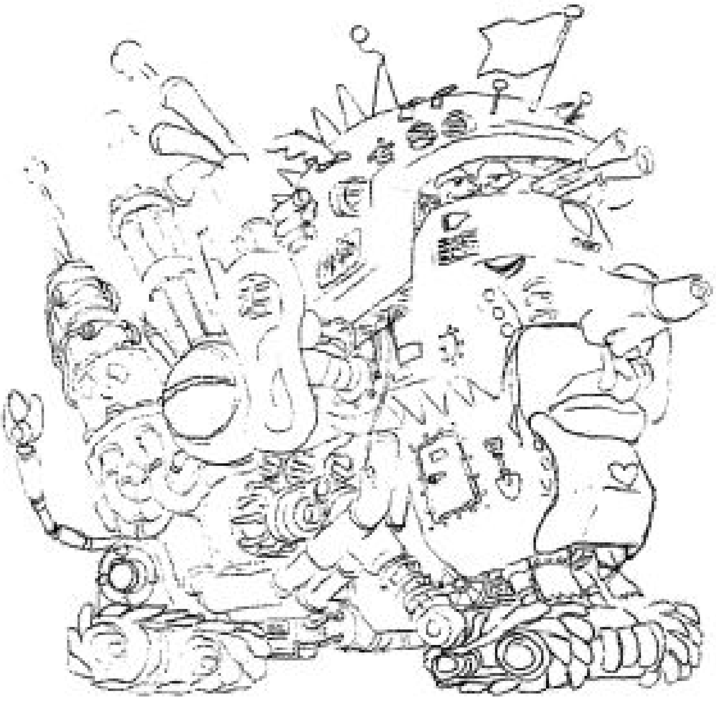


A very early drawing of the SV-001, which shows a different player character clearly visible inside the tank, before Marco and Tarma were introduced.

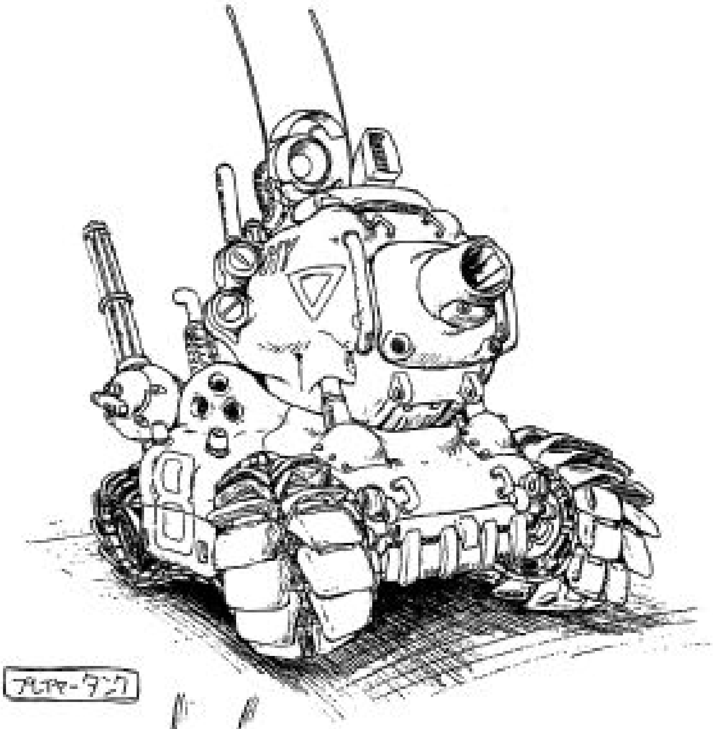

びんぼうゲリラ
メインショットは
タイムリカバリー式
(5発ていどストック)
パワーUPでかんつうなど
フレア発射
◎プレイヤー戦車
(メタルスラッグ)
↓でふせてよける
A=バルカン。
B=ジャンプ
C=キャノン
12
弱点
※背中からうたれると死ぬ。

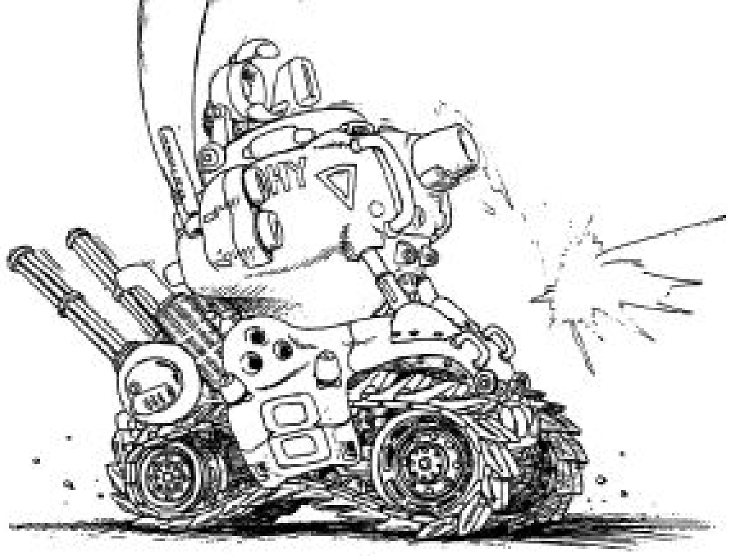
Early playful sketches of the SV-001 before its iconic design was decided upon. Interestingly, they look more like end-of-level bosses; the final design was much smaller and compact.

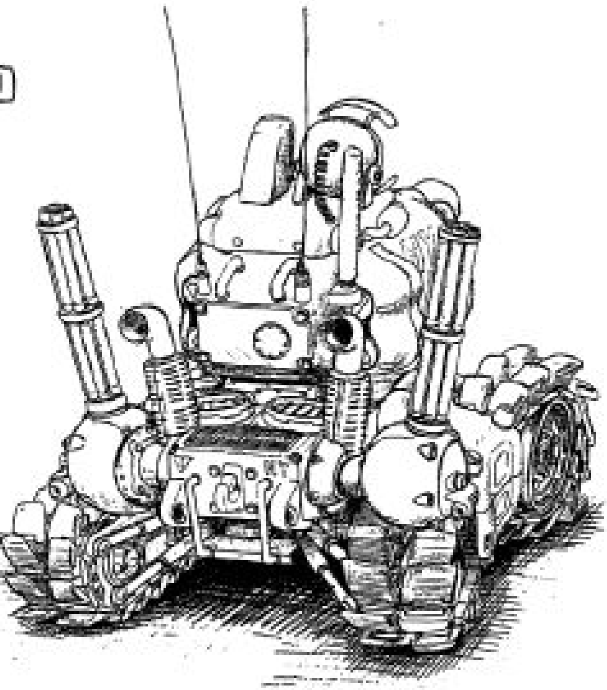

METAL SLUG
TYPE-C
MSC



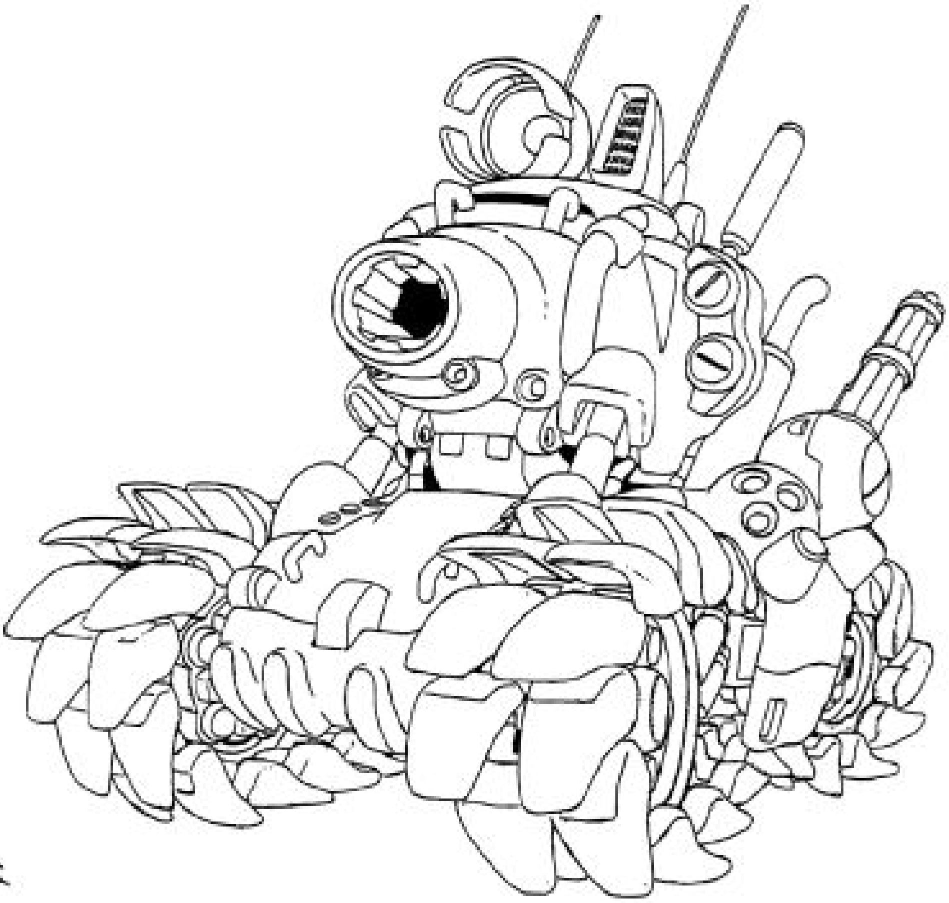
Later concepts for the SV-001, which now looks much more like it does in the final game.


初期設定
プレイヤータンク

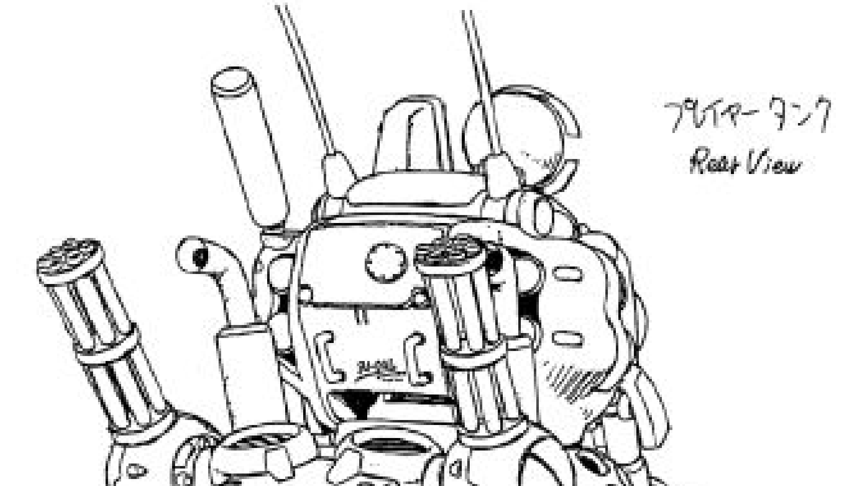

初期設定
プレイヤータンク


初期設定
プレイヤータンク

Front and rear final designs of the SV-001. The look is now less rounded and playful compared with the early concepts.

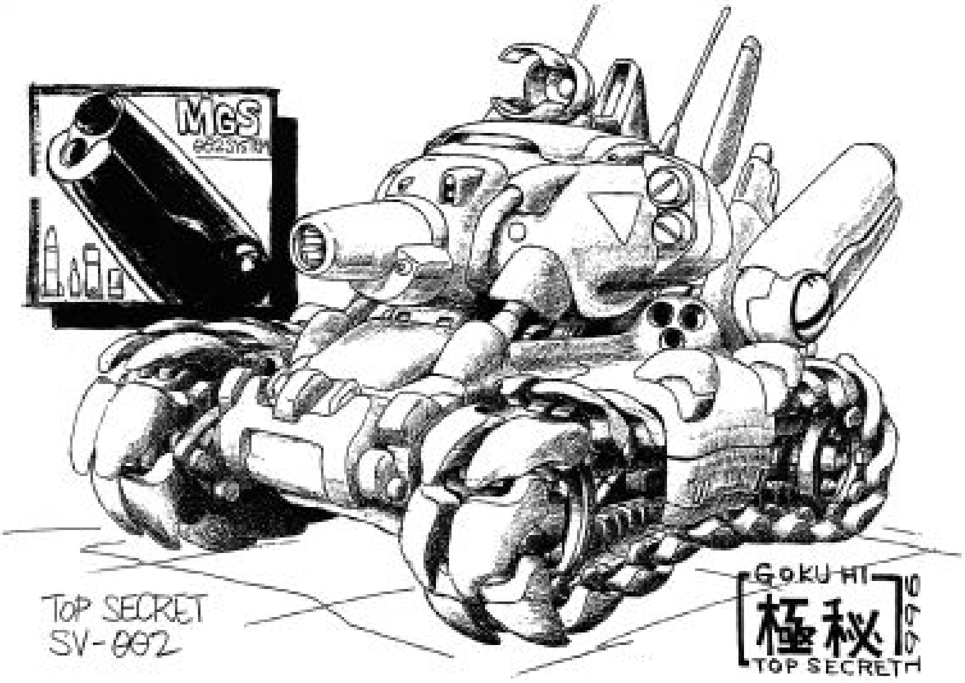


TITLE 演出

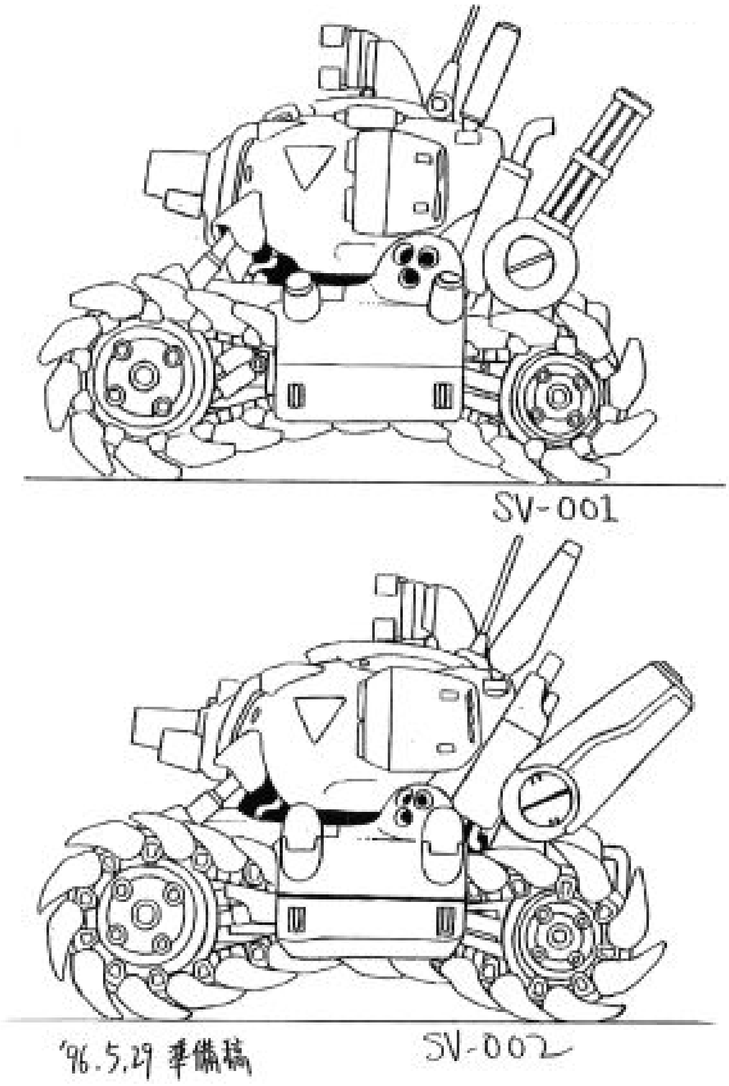


プレイヤー タンク
Rear View

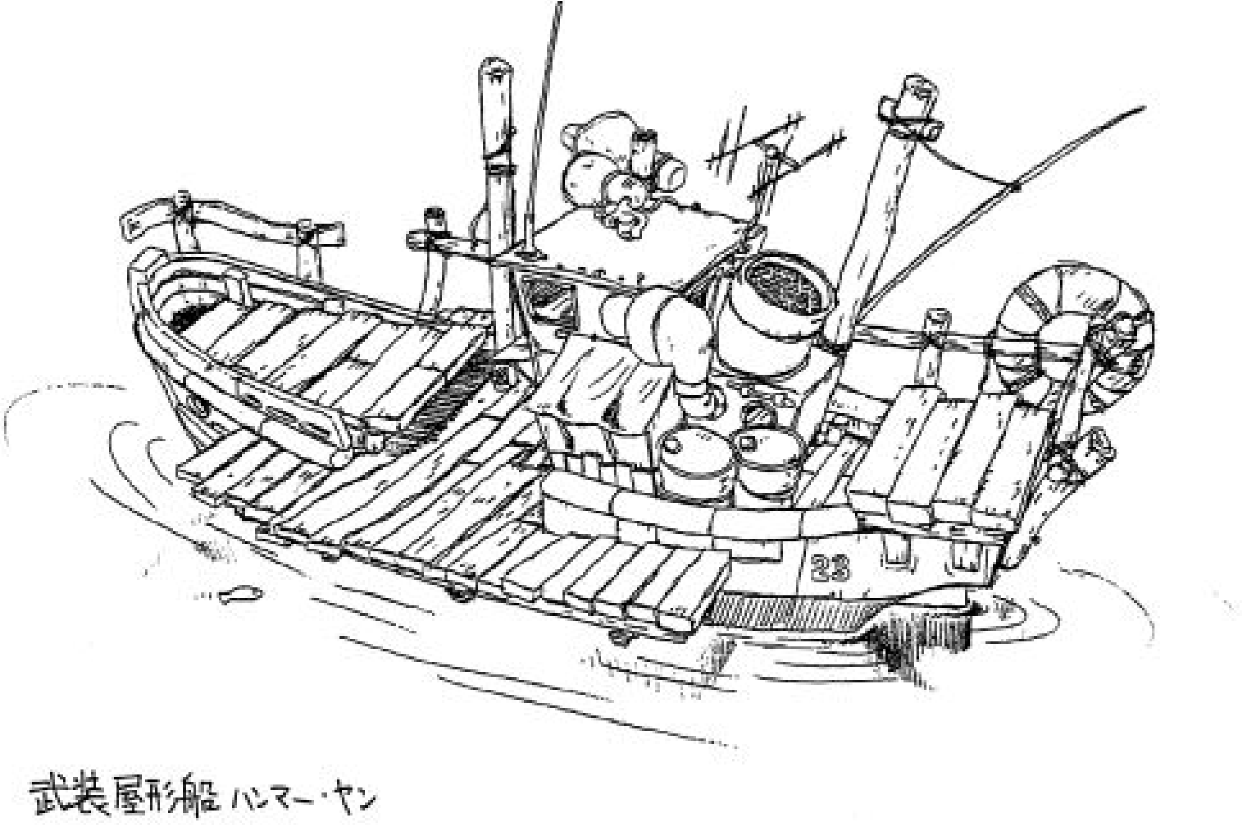
Concepts for the SV-002, which were never used in the game. This would have been used as the second playable tank.


MGS
TOP SECRET
SV-002
GOKU HI
極秘
TOP SECRET

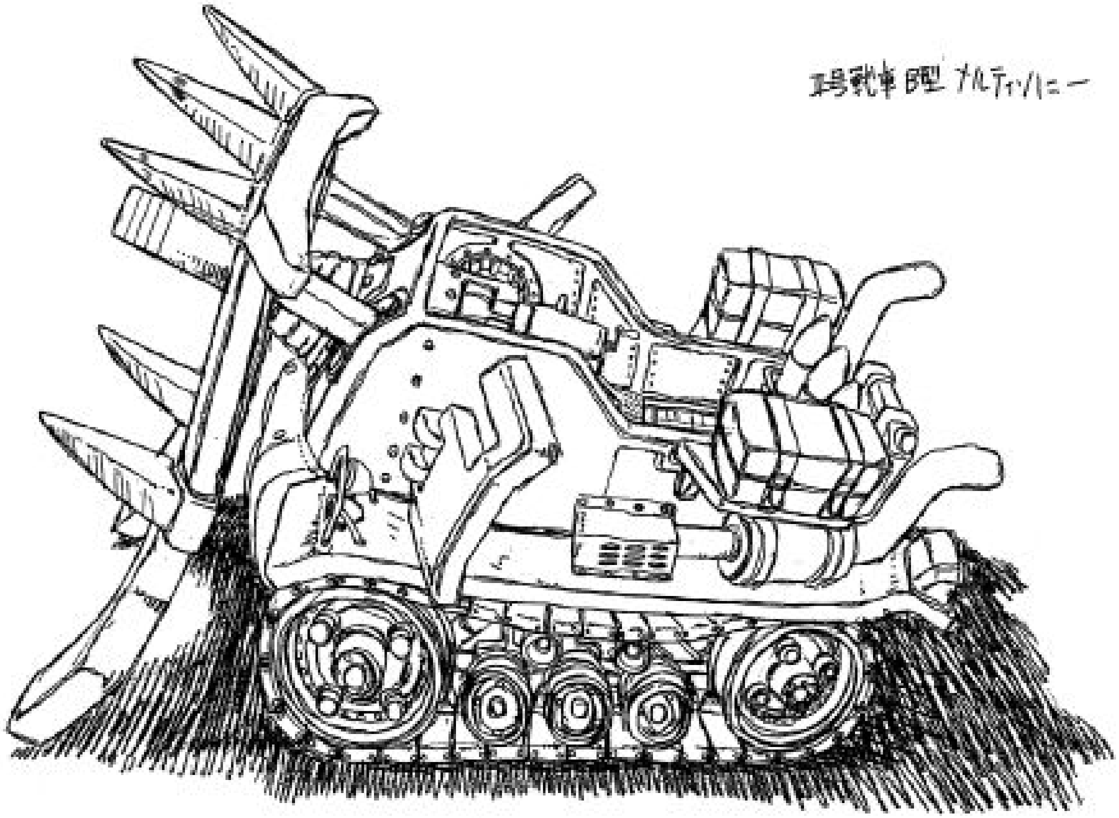
This comparison clearly shows that the SV-002 had some key differences to the SV-001, namely a machine gun and missile launcher instead of a Vulcan. The overall design is also slightly lower and sleeker.


SV-001
'96.5.29 準備稿
SV-002

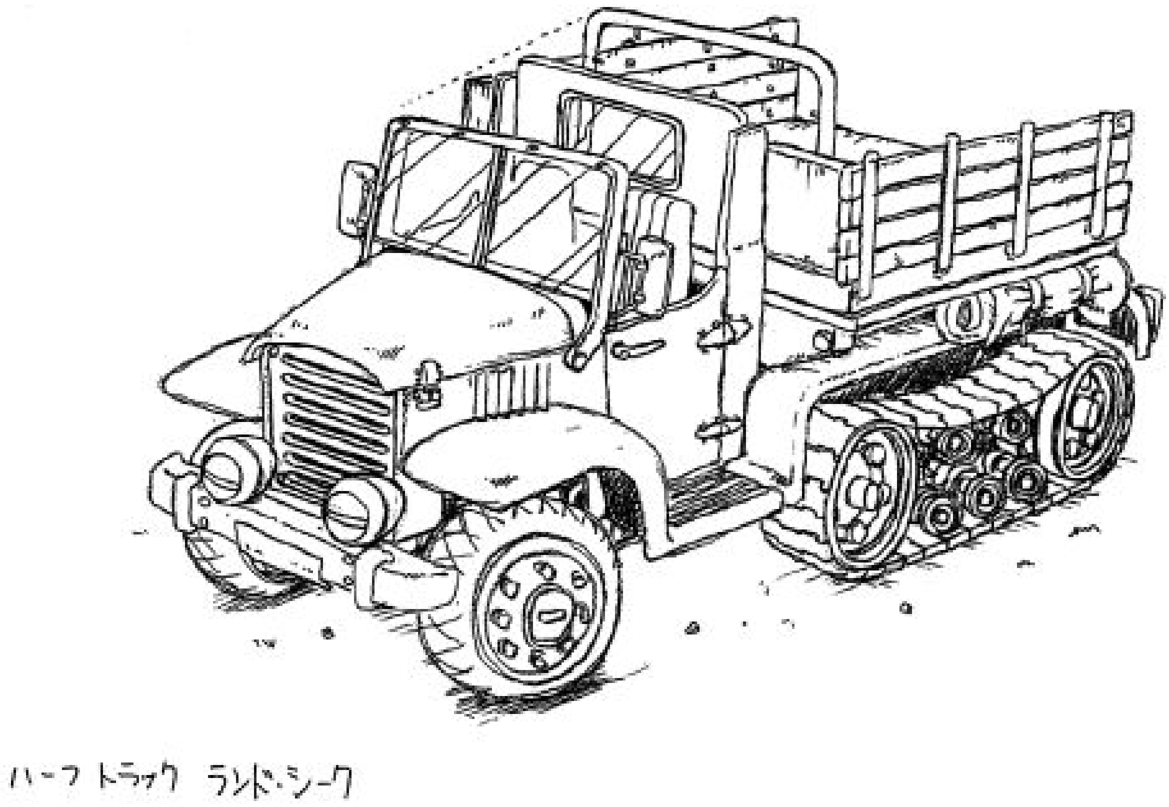
A small selection of the enemy vehicles that appear in *Metal Slug*; each one was meticulously designed before being inserted into the game.


23
武装屋形船 ハンマー・ヤン

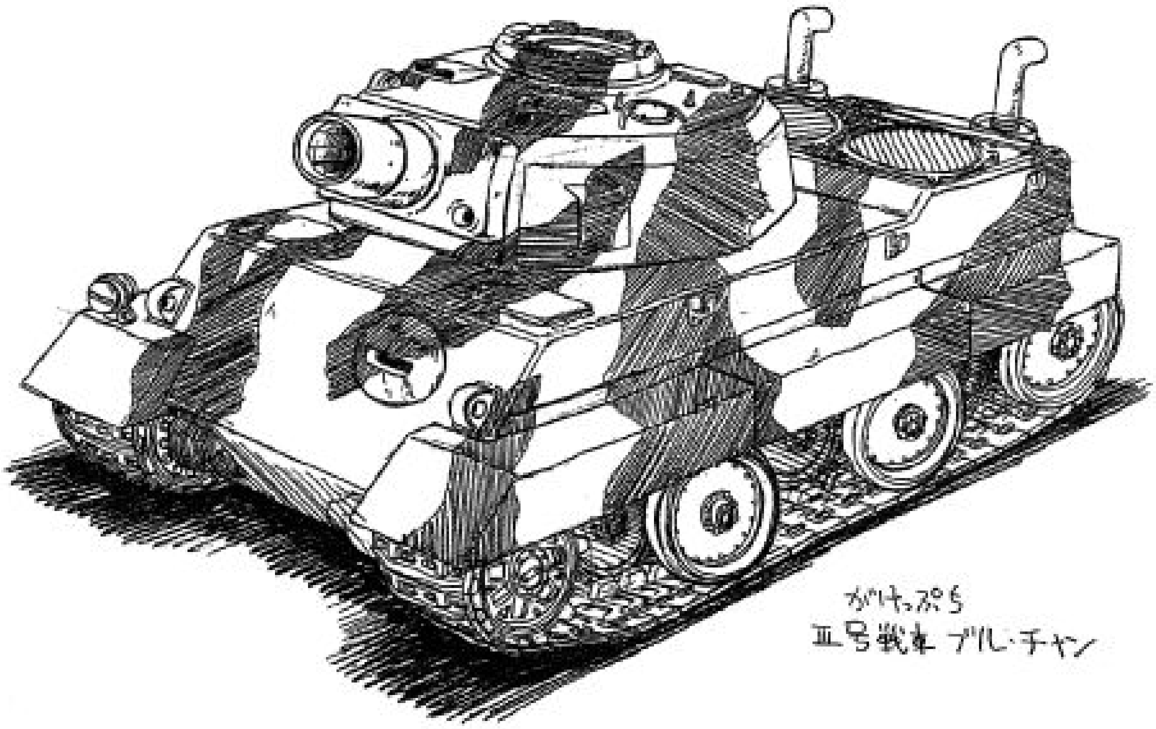
Hammer-Yang boat


二号戦車B型 メルティハニー

T-2B Melty Honey tank

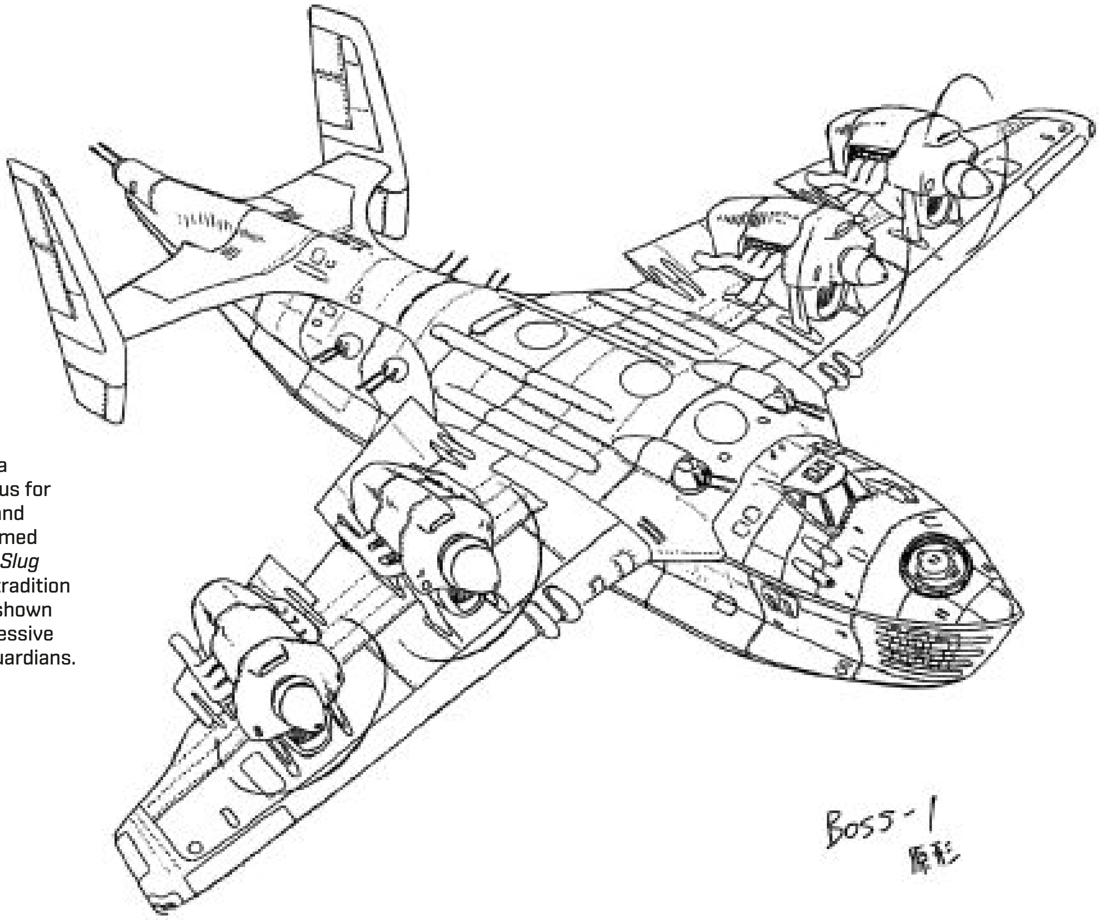

ハーフ トラック ランド・シーク

Landseek truck

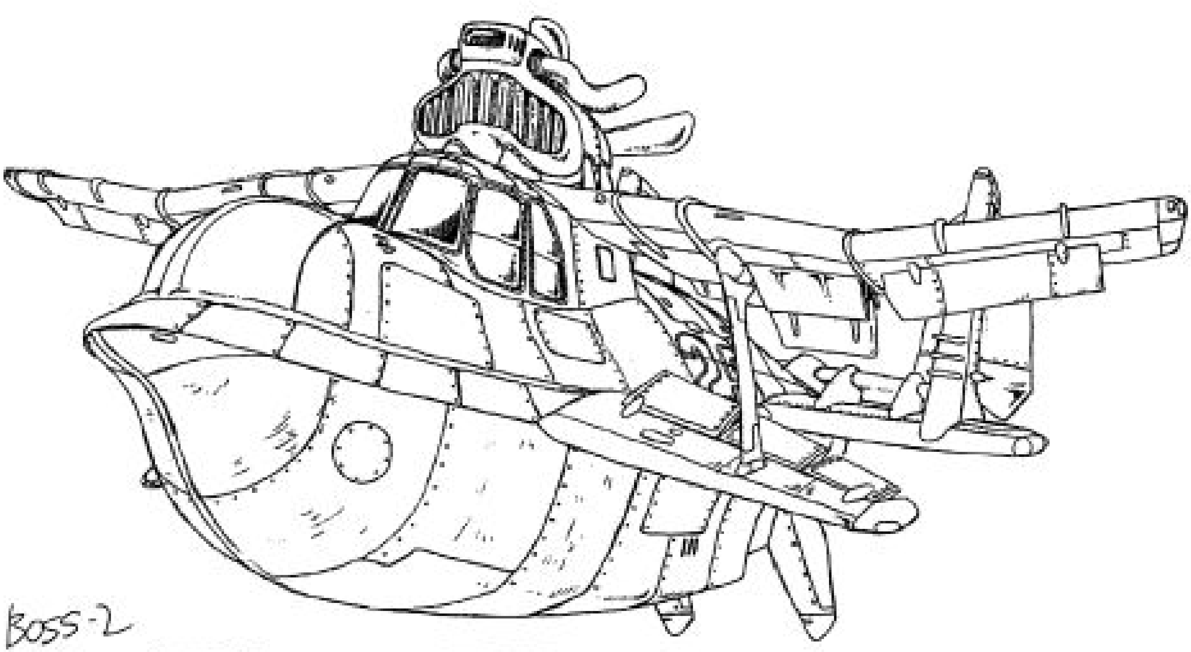

がけっぷち
Ⅲ号戦車 ブル・チャン

Bull Chan tank

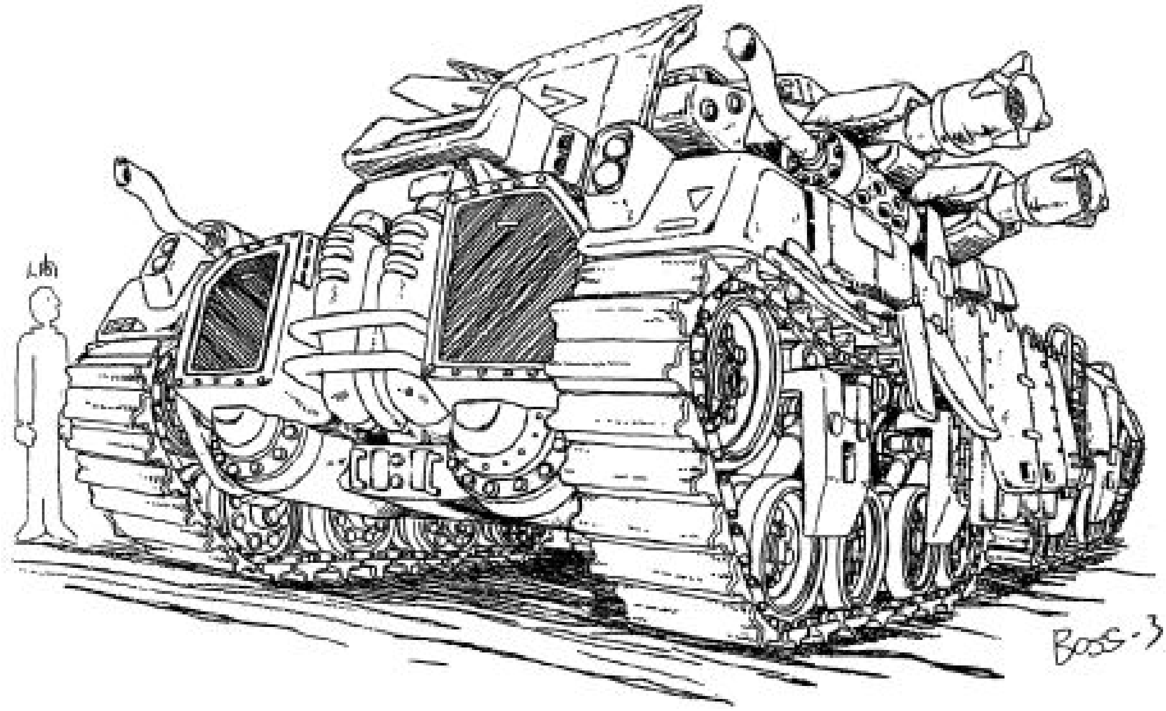
Metal Slug as a series is famous for its oversized and ridiculously armed bosses. *Metal Slug* kicks off this tradition in style, as is shown with this impressive selection of guardians.



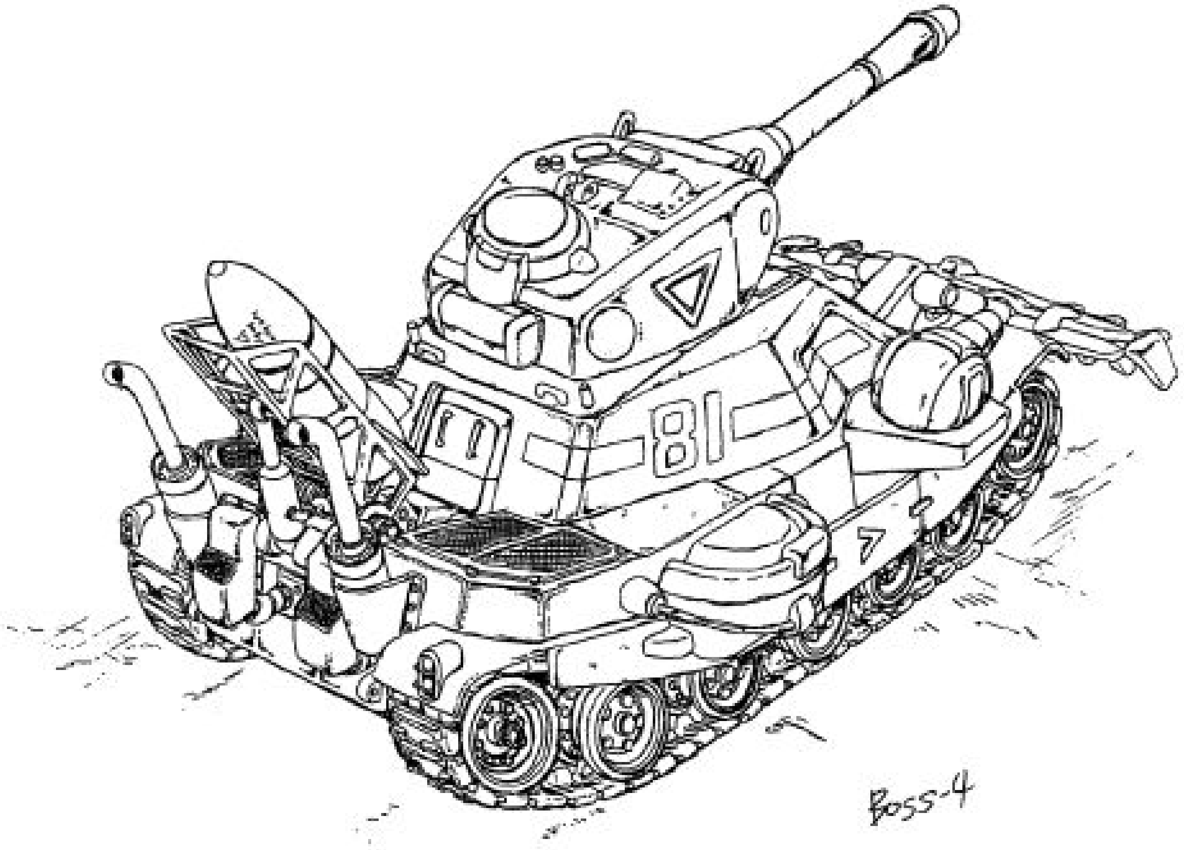
T-770 Tetsuyuki (Mission 1 boss)



Hairbuster Riberts (Mission 2 boss)

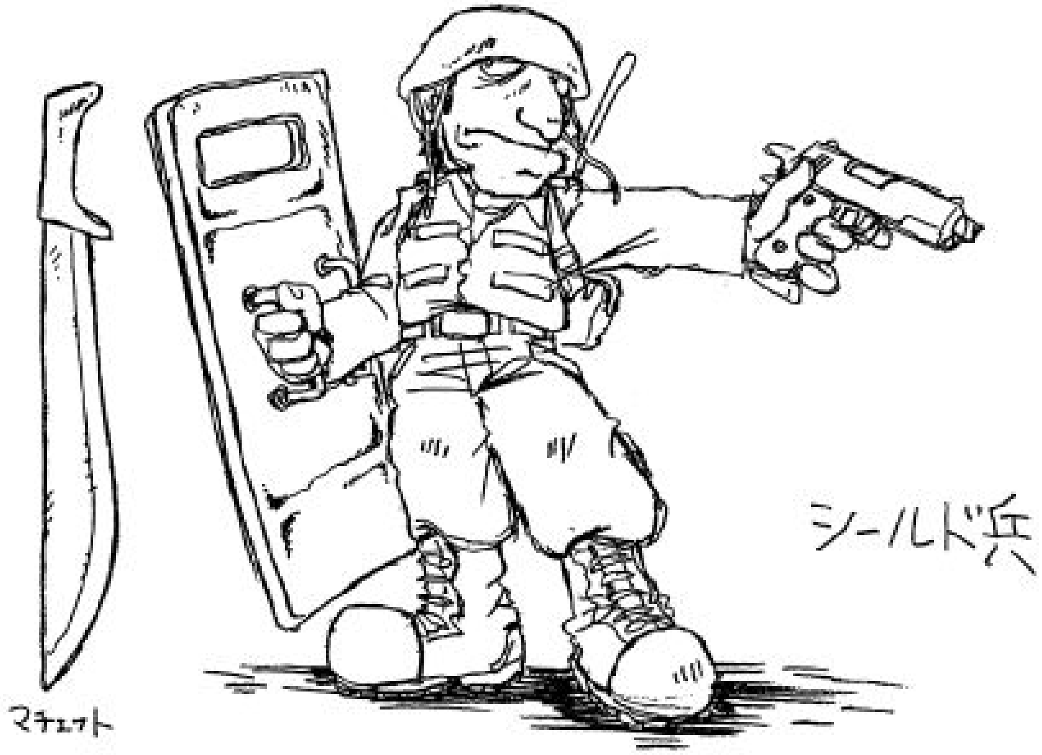


Tani Oh (Mission 3 boss)

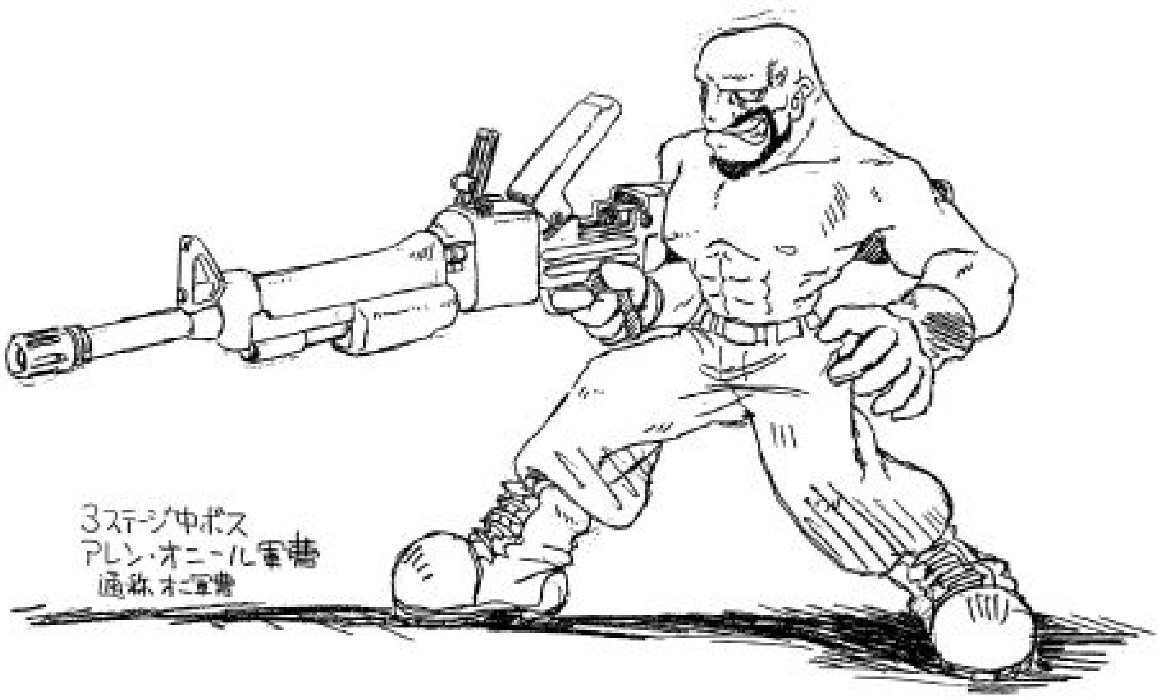


Shoe & Karn (Mission 4 boss)

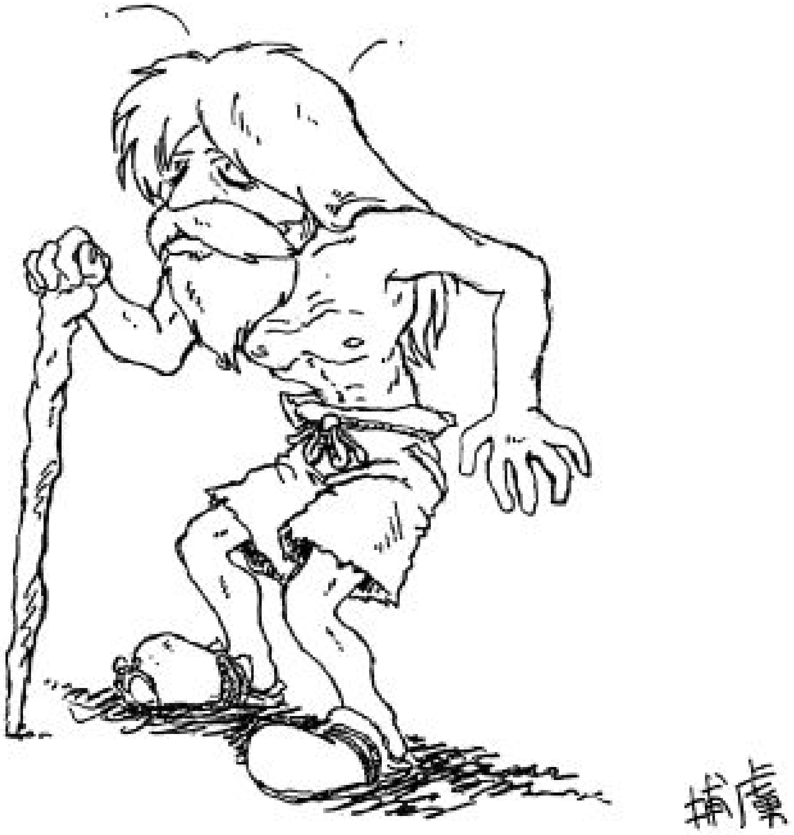
A selection of early designs for various characters you'll encounter in *Metal Slug*, including General Donald Morden's right-hand man, Sergeant Allen O'Neil.


シールド兵
マチェット

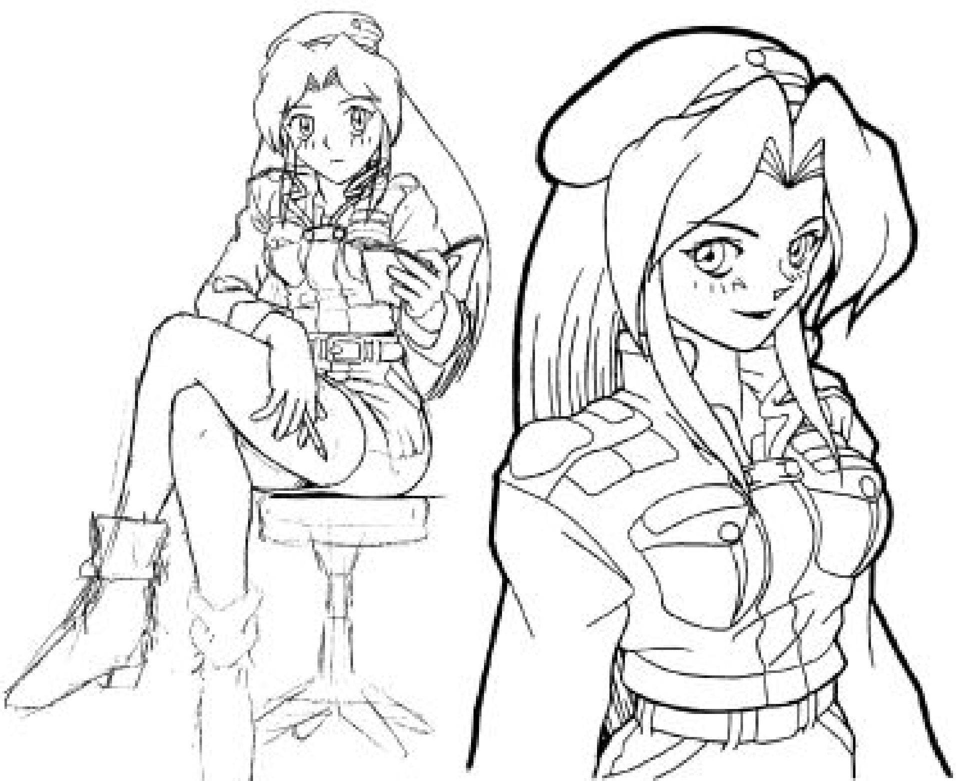
Rebel Soldier


3ステージ中ボス
アレン・オニール軍曹
通称、オニ軍曹

Sergeant Allen O'Neil

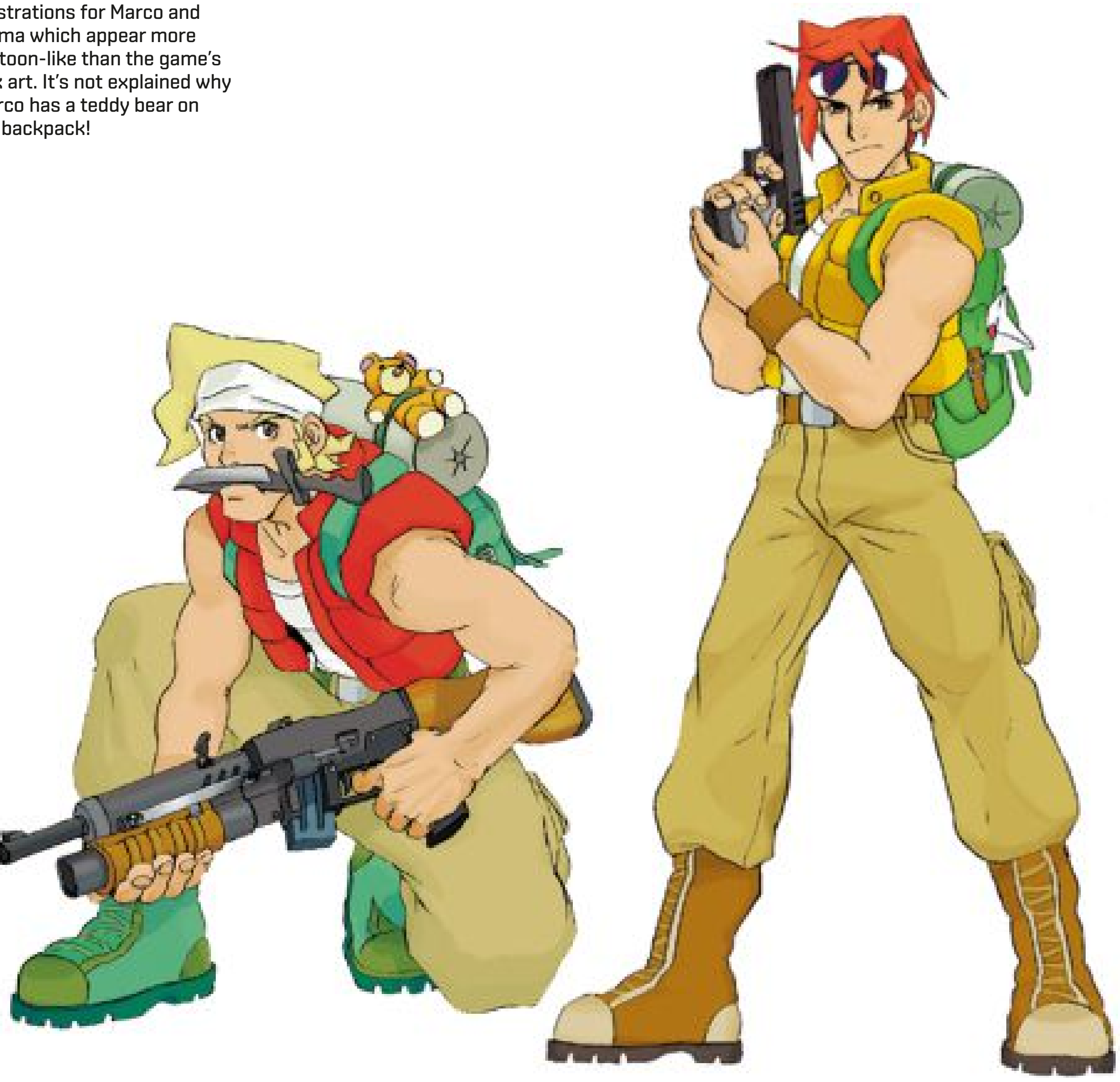


Prisoner of War (POW)

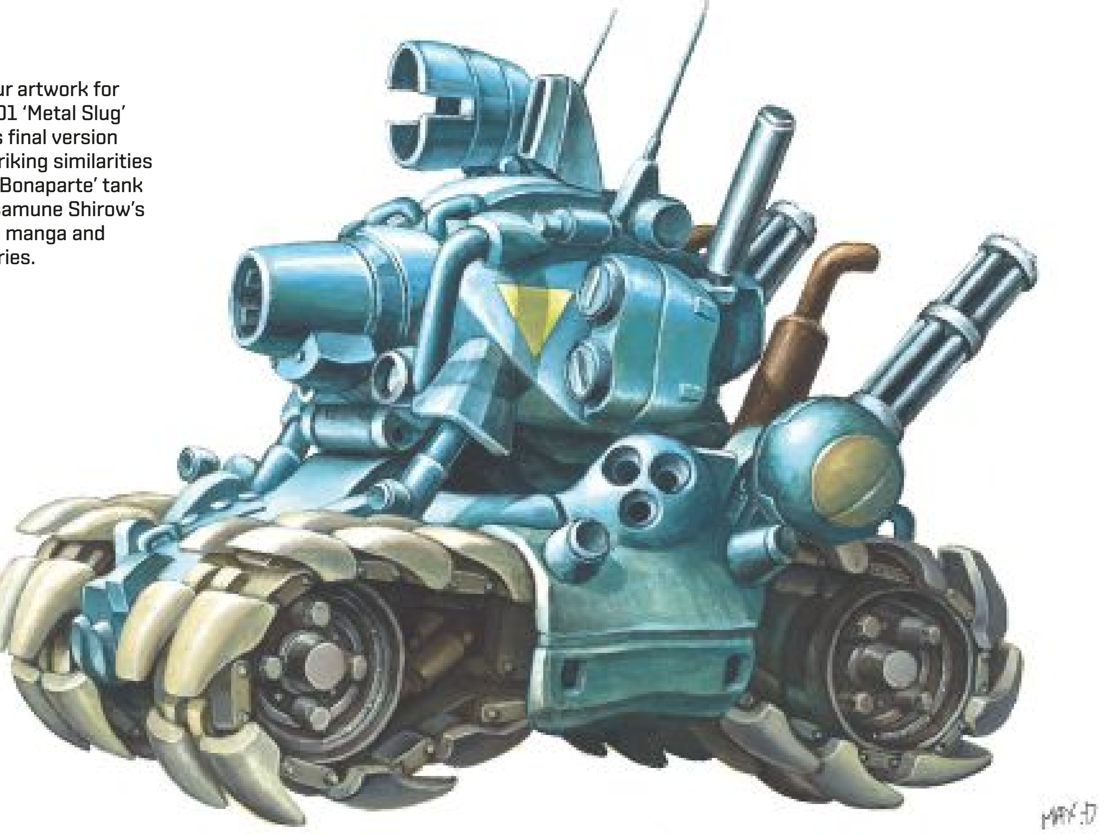


Sophia Greenville

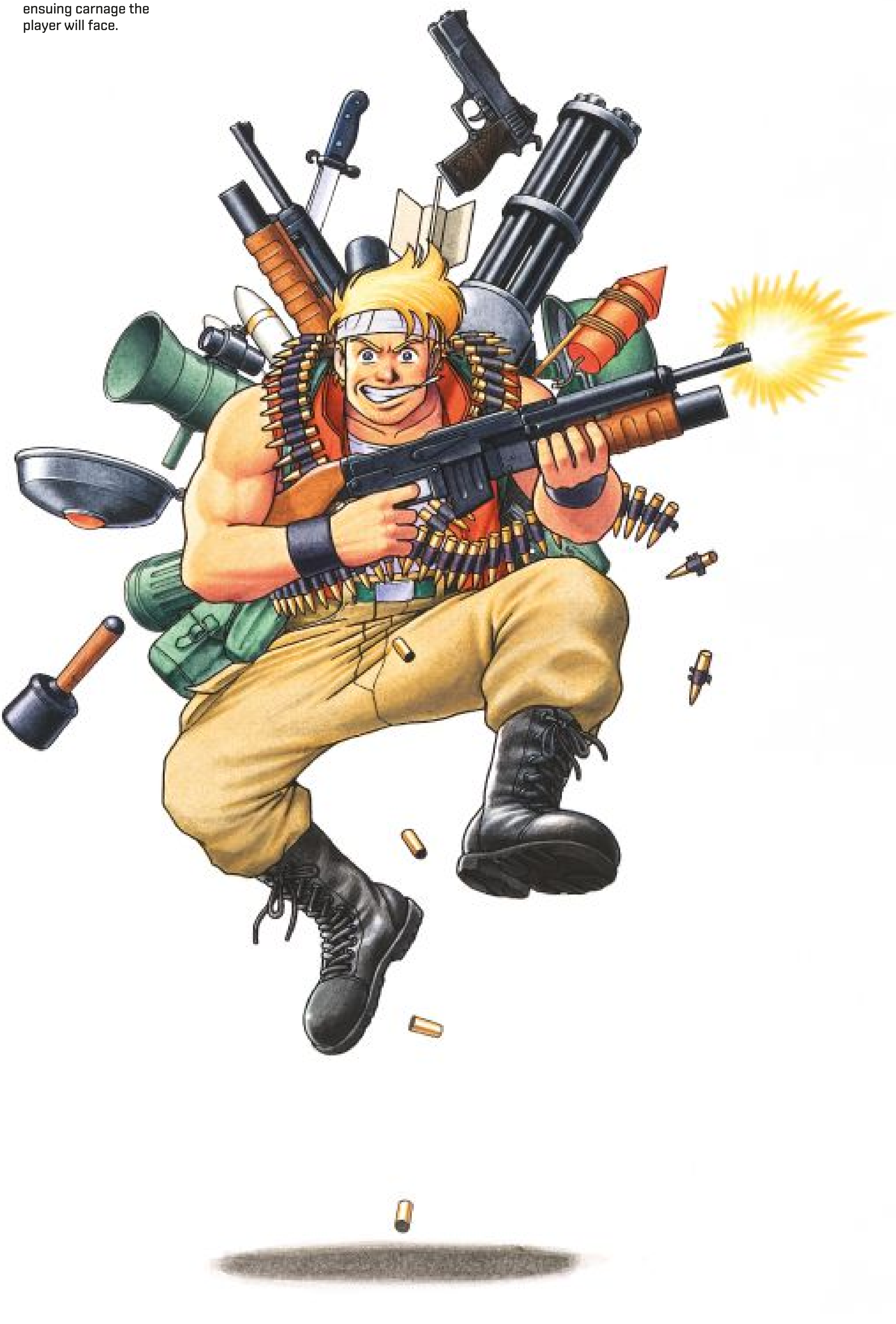
Illustrations for Marco and Tarma which appear more cartoon-like than the game's box art. It's not explained why Marco has a teddy bear on his backpack!

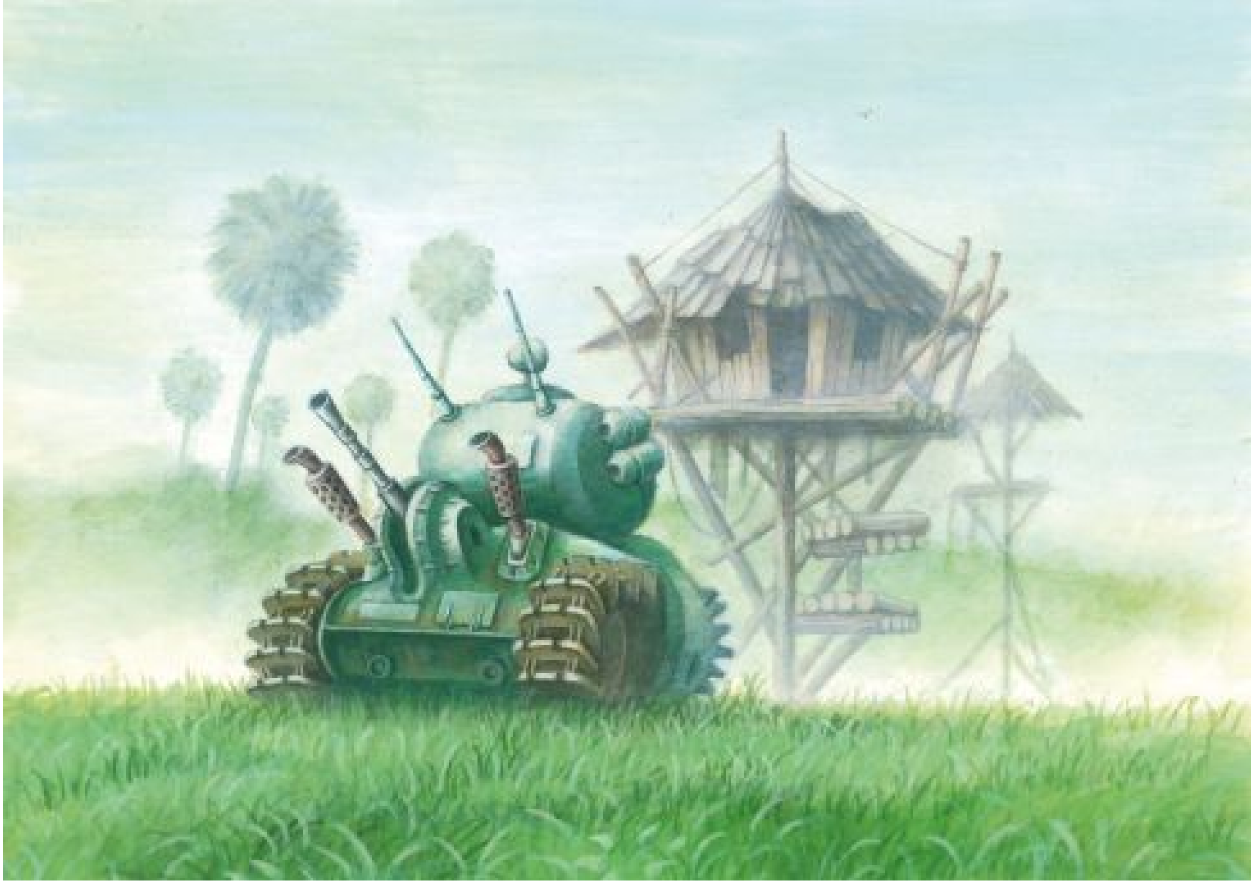


Full-colour artwork for the SV-001 'Metal Slug' tank. This final version shows striking similarities with the 'Bonaparte' tank from Masamune Shirow's *Dominion* manga and anime series.

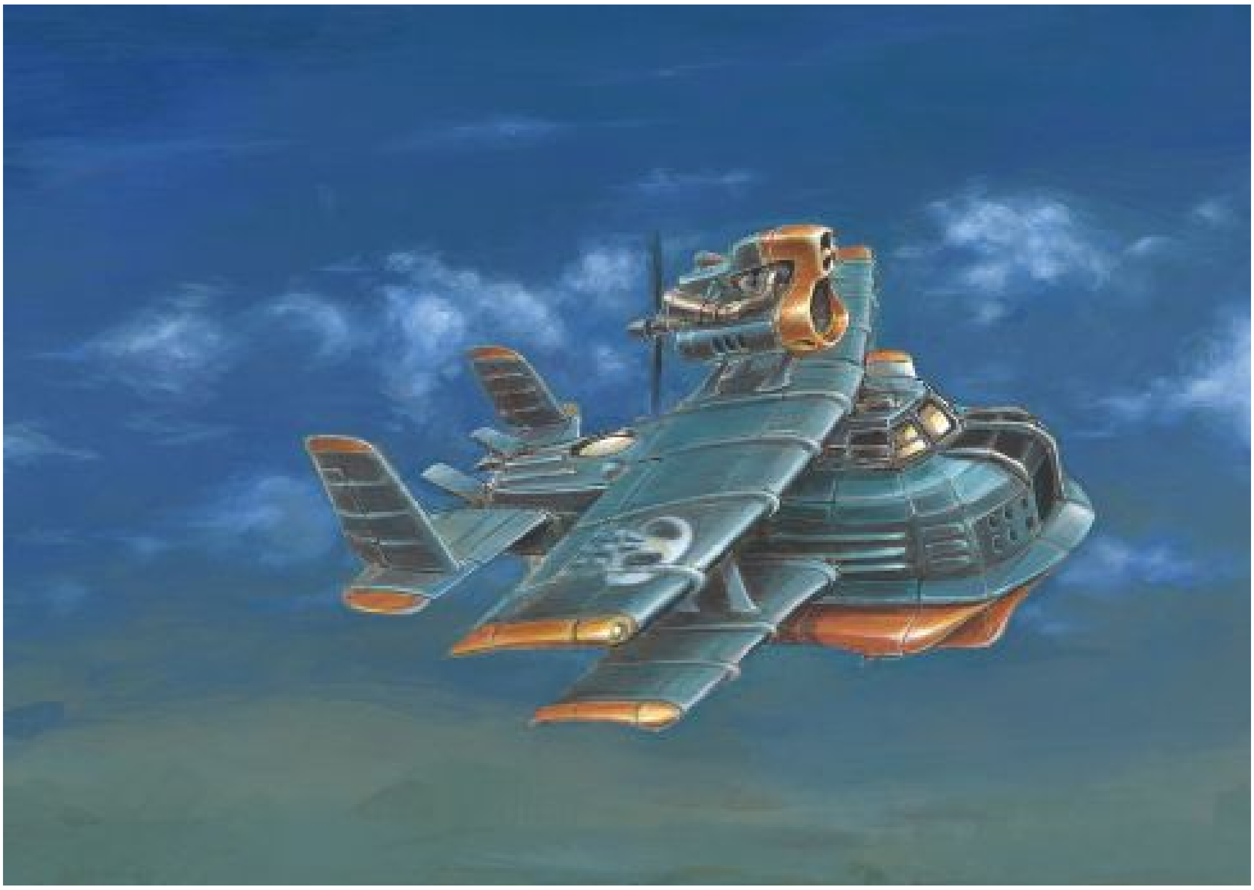


This iconic artwork of Marco Rossi appears on the game packaging for *Metal Slug*. The array of weapons hint at the ensuing carnage the player will face.

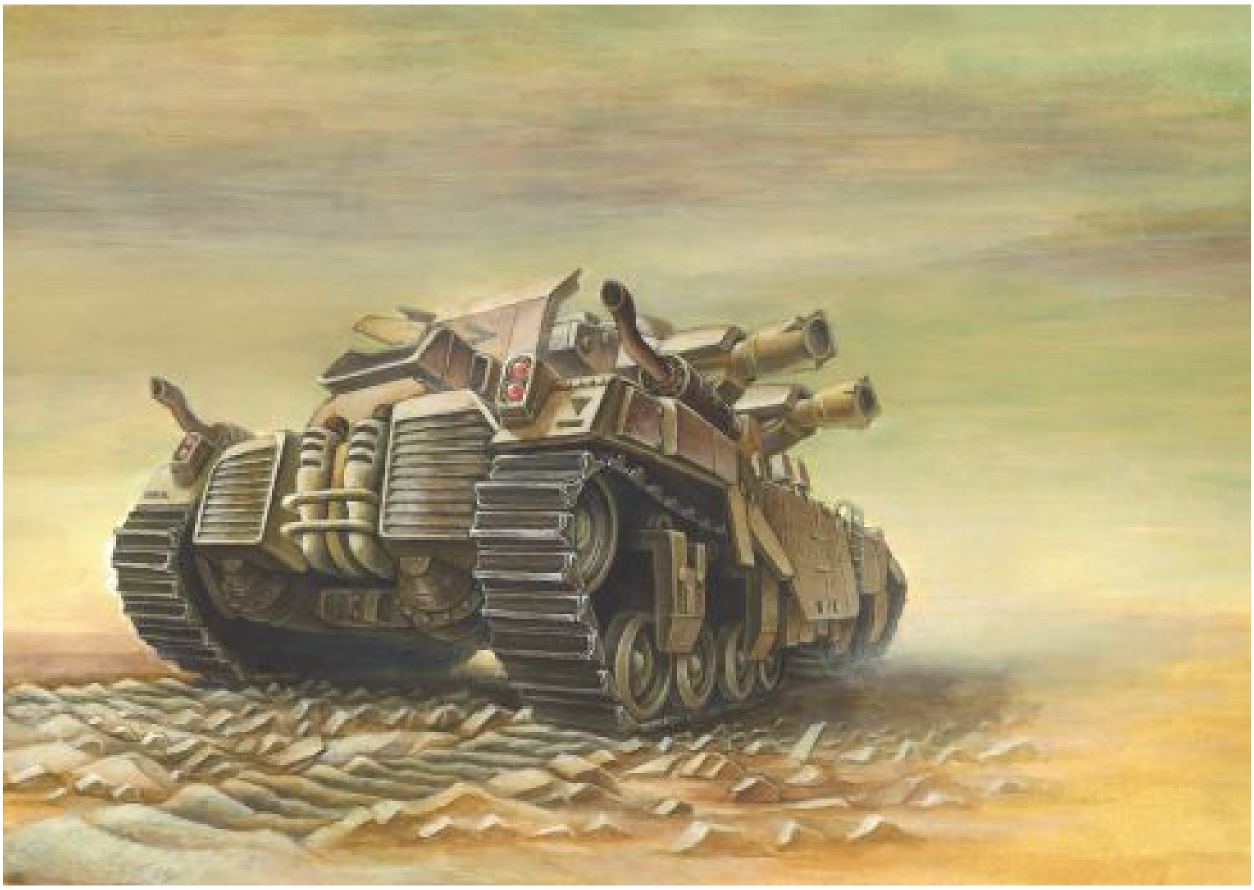




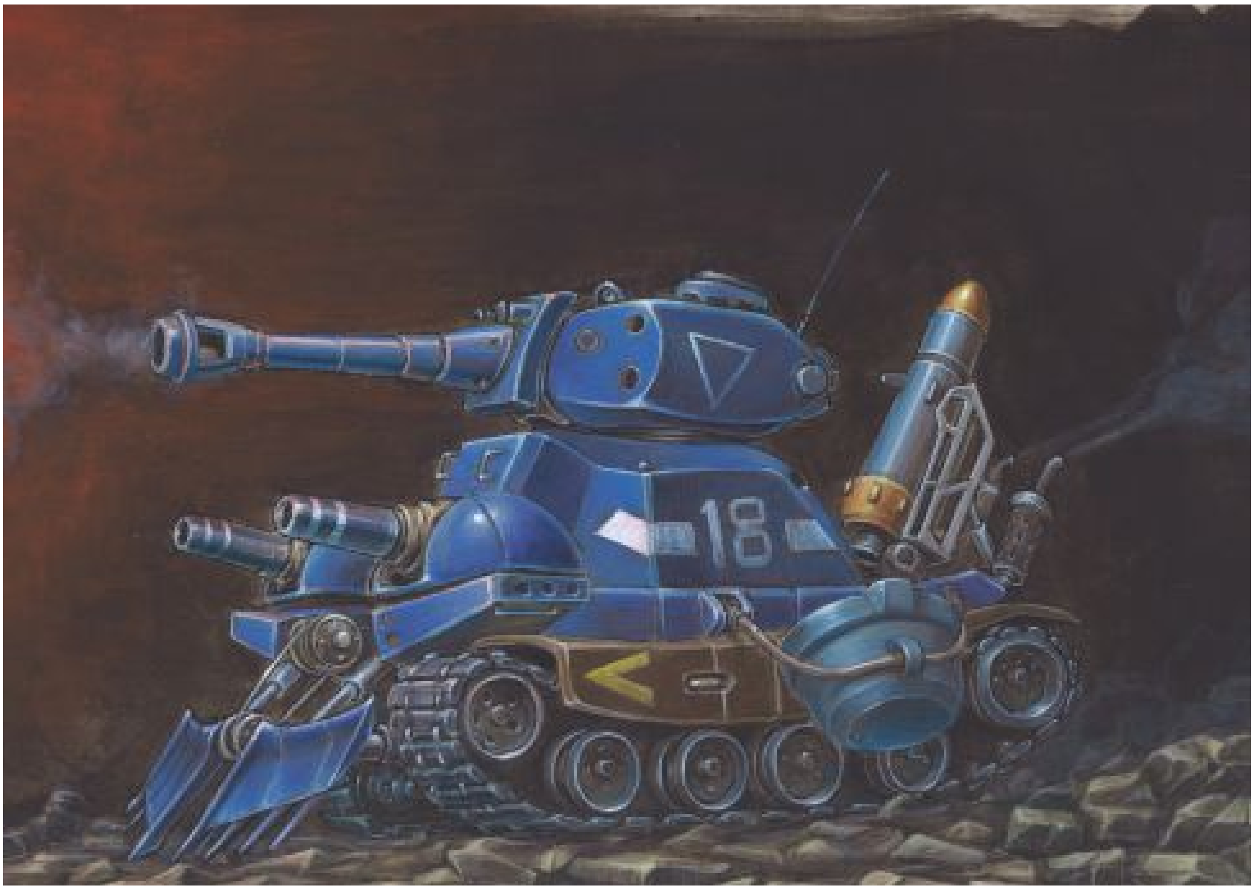
Artwork depicting a scene from the first mission in *Metal Slug*. Note the missing Vulcan guns from the rear, as well as other subtle design and colour differences.



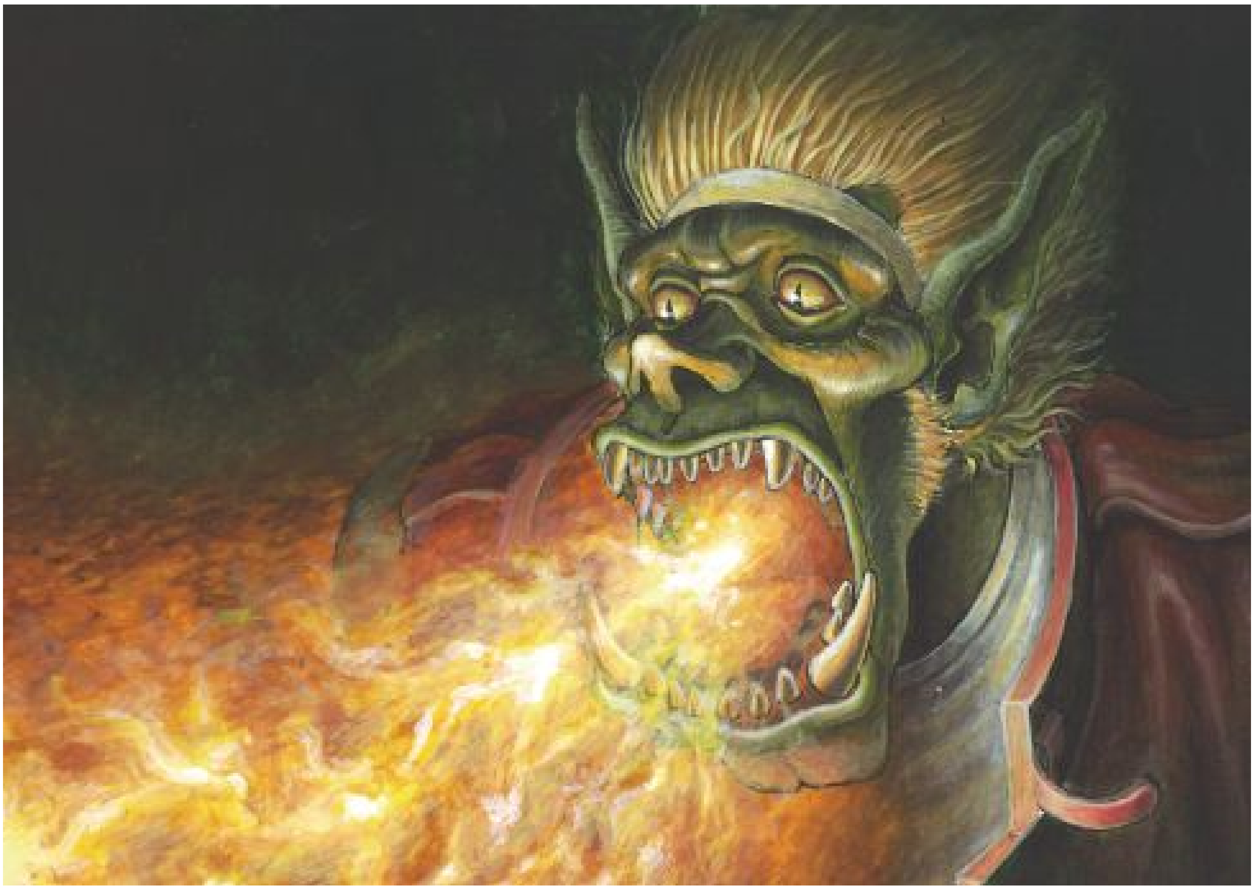
Artwork for the Hairbuster Riberts aircraft. This Mission 2 boss in *Metal Slug* also reappears as a mini-boss in *Metal Slug 3*.



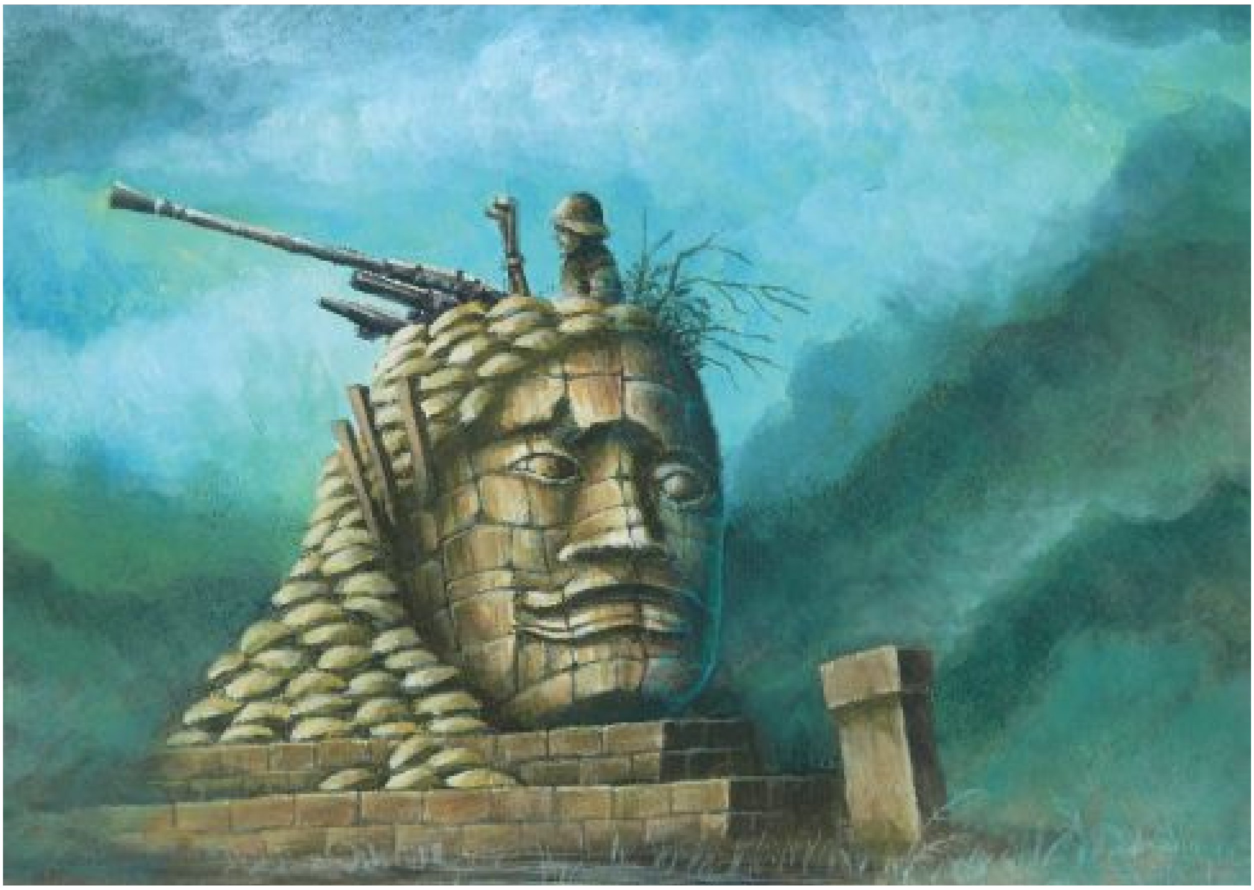
Artwork for the Tani Oh Mission 3 boss in *Metal Slug*. This huge tank's artillery consists of a cannon, mines and a minigun.



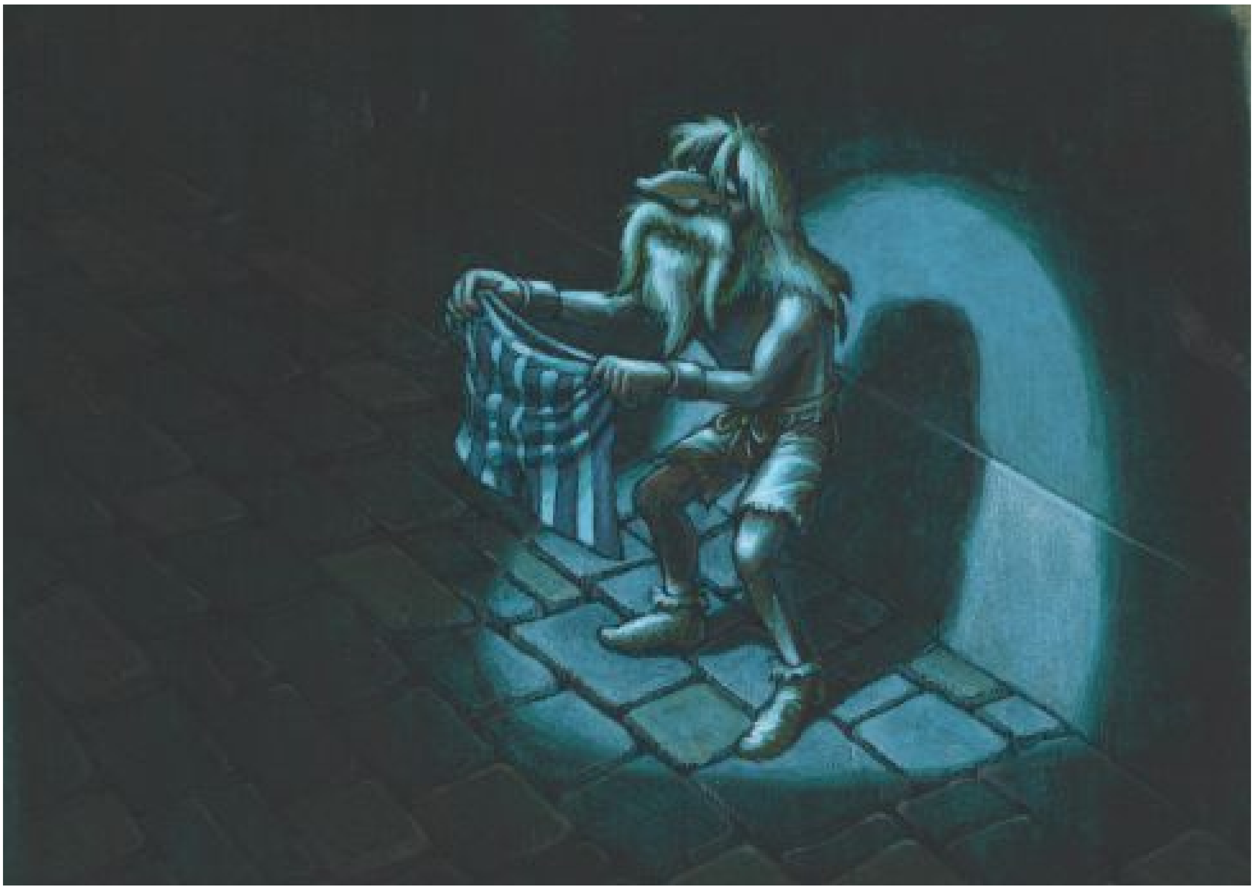
Shoe & Karn are a pair of heavy-duty tanks that feature as the Mission 4 end-of-level boss. This painting of 'Shoe' is differentiated by its metallic silver and blue finish.



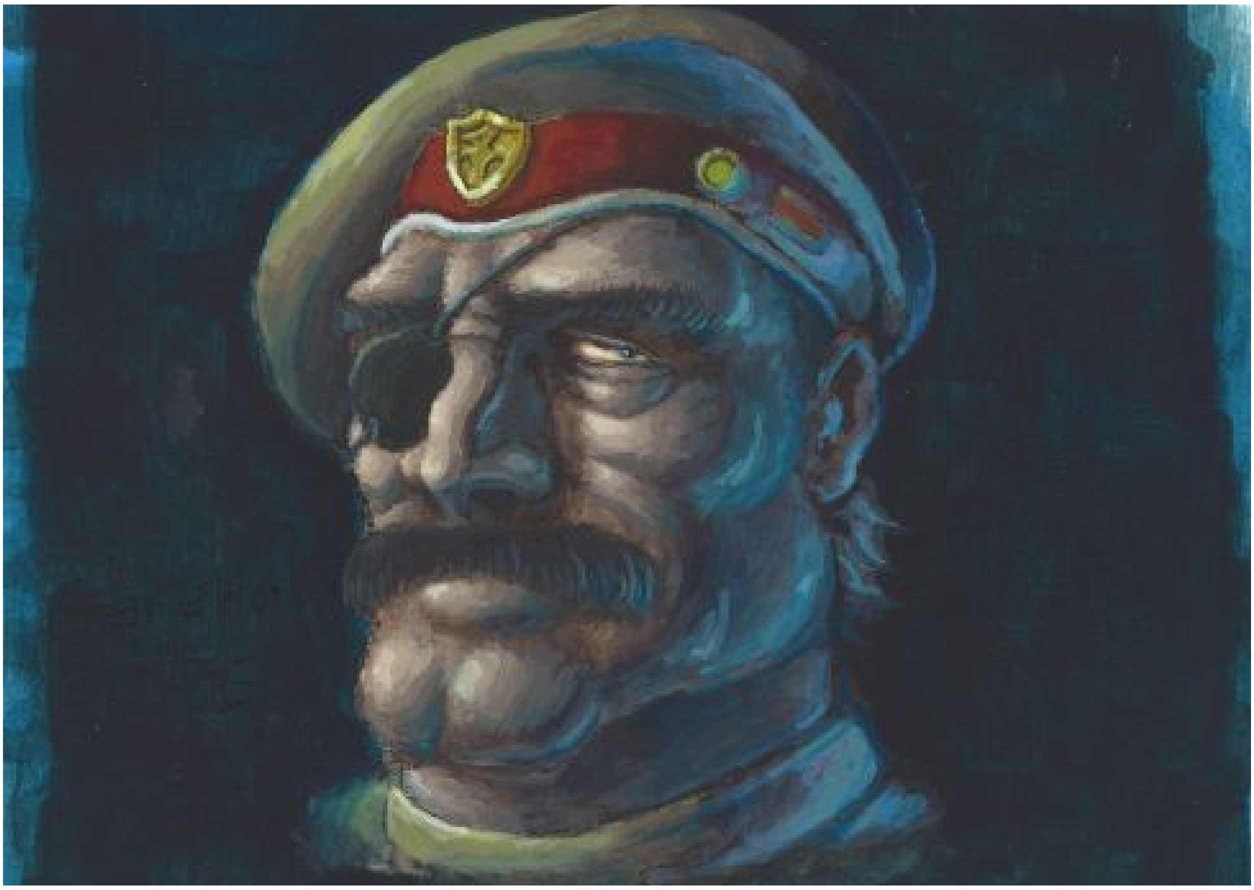
Reaching the highest rank in *Metal Slug*'s Combat School unlocks Super Devil mode, as shown in this artwork. The special mode turns your skin green and upgrades your weapons.



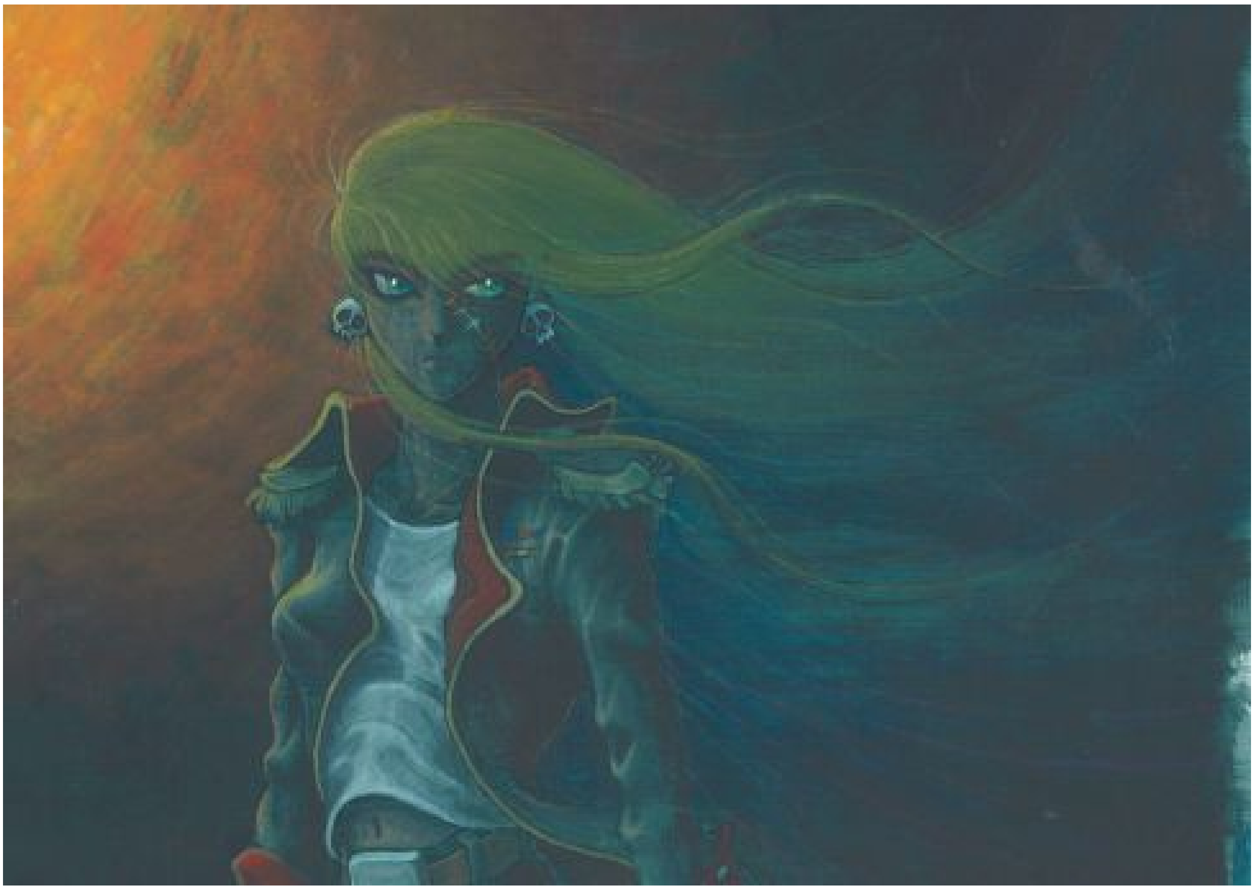
Artwork of the first mission of *Metal Slug* shows a soldier and cannon located within a stone statue – something that didn't make it into the final game.



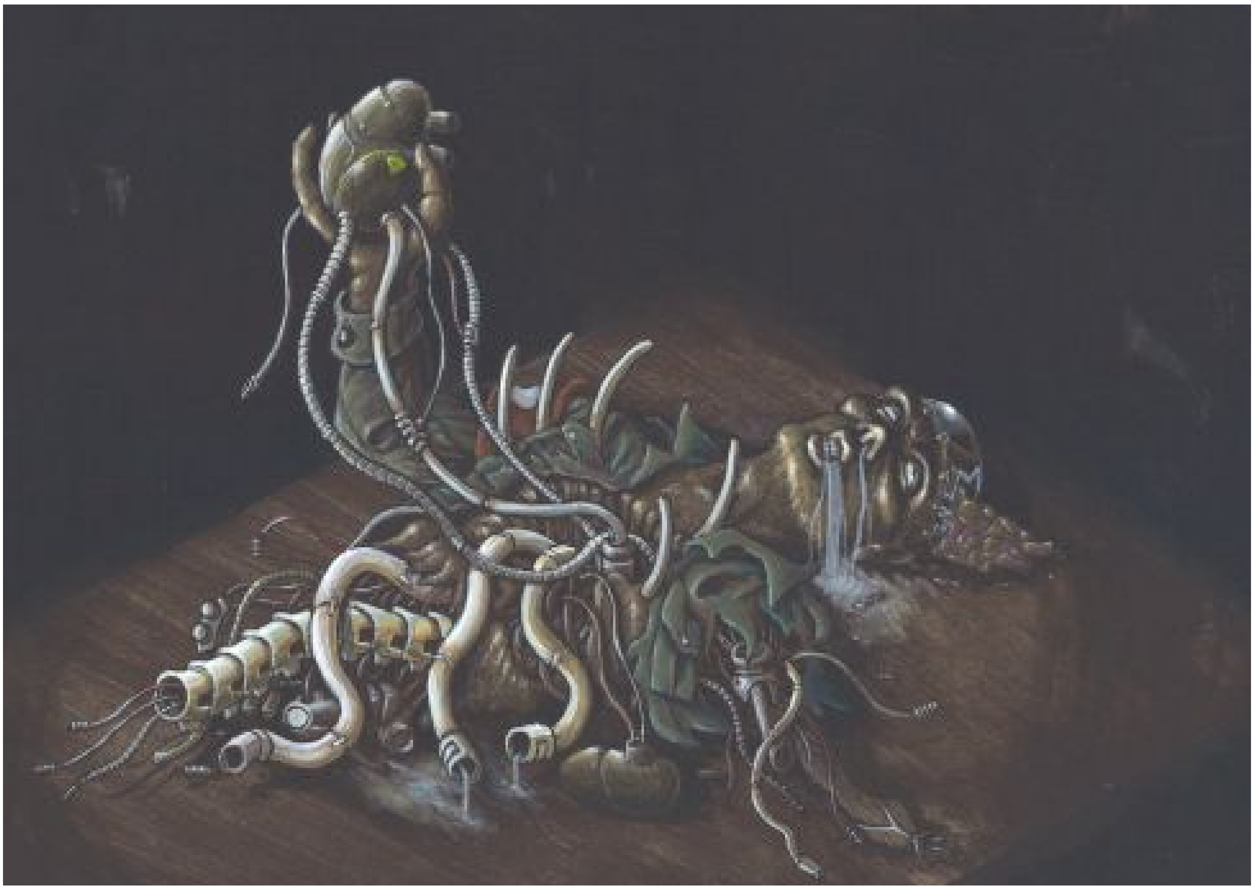
Once rescued, the grateful POWs pull an item from their pants for the player – such as a weapon upgrade, as shown in this artwork.



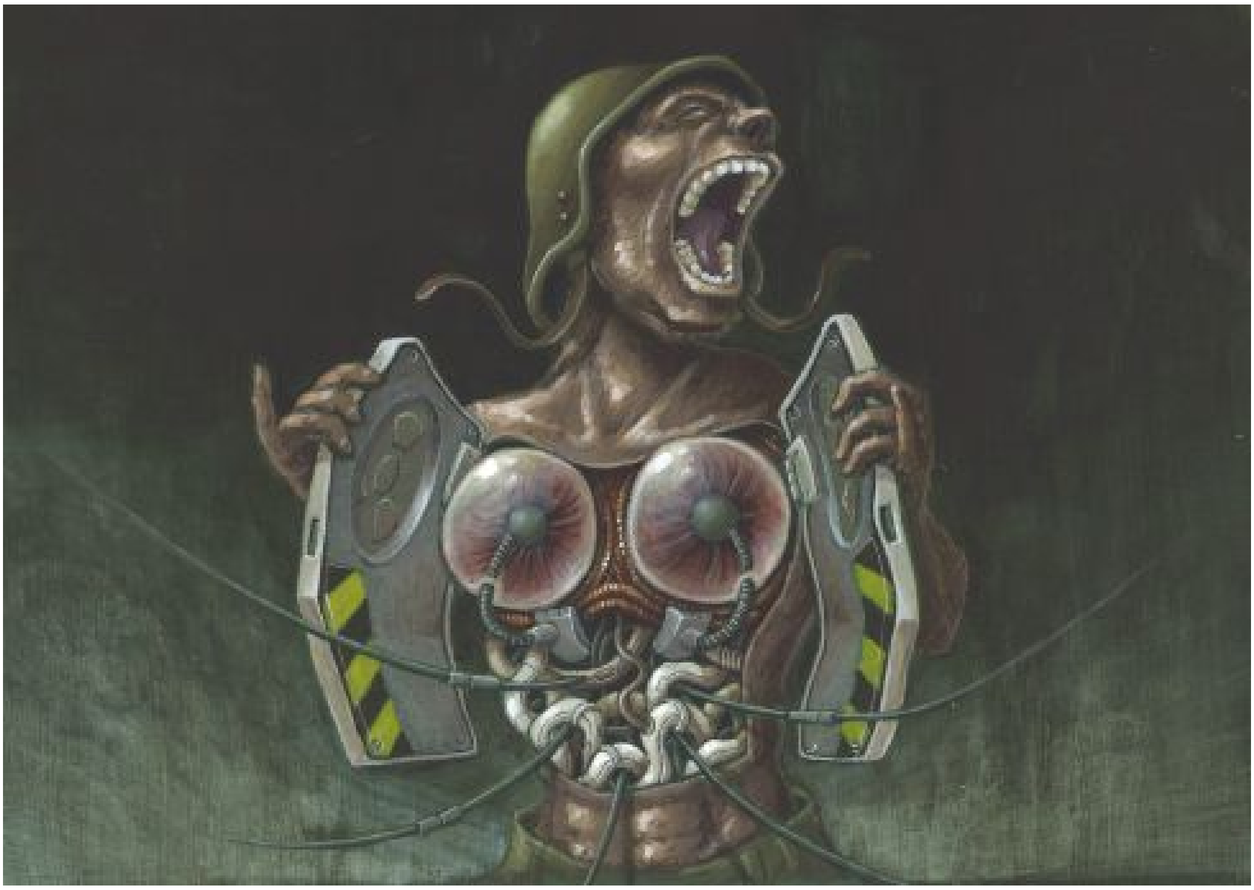
Artwork for General Donald Morden, leader of the Rebel Army. Morden is the main antagonist throughout pretty much the entire Metal Slug series.



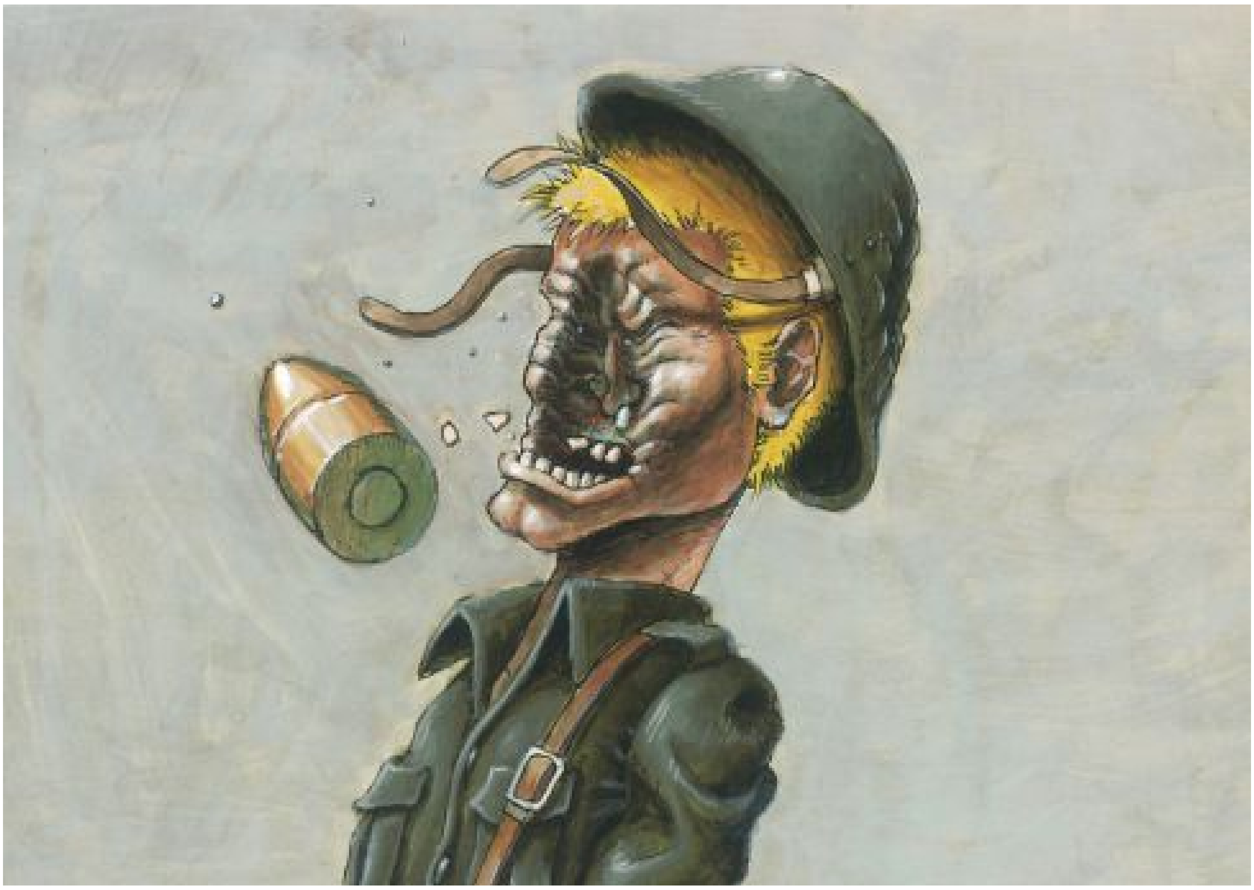
This artwork is thought to be an early design for Sophia Greenville, although this is not confirmed. She looks much more sinister here compared with the final design, where she is very feminine.



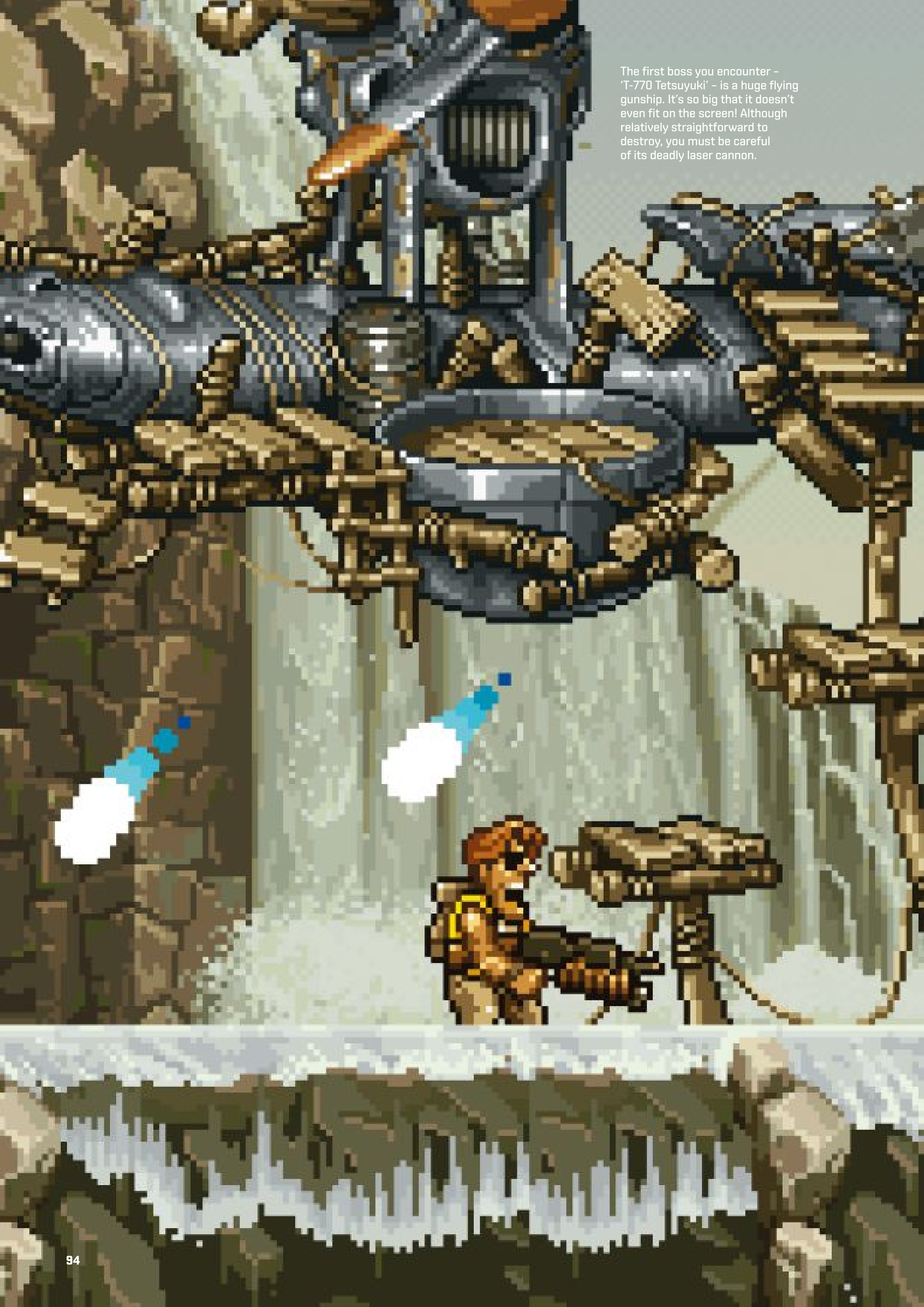
The following artworks were created for fun, and bear little relation to what appeared in the first *Metal Slug*. This gruesome scene where a part-robot, part-human soldier has been destroyed and is holding aloft his synthetic heart.



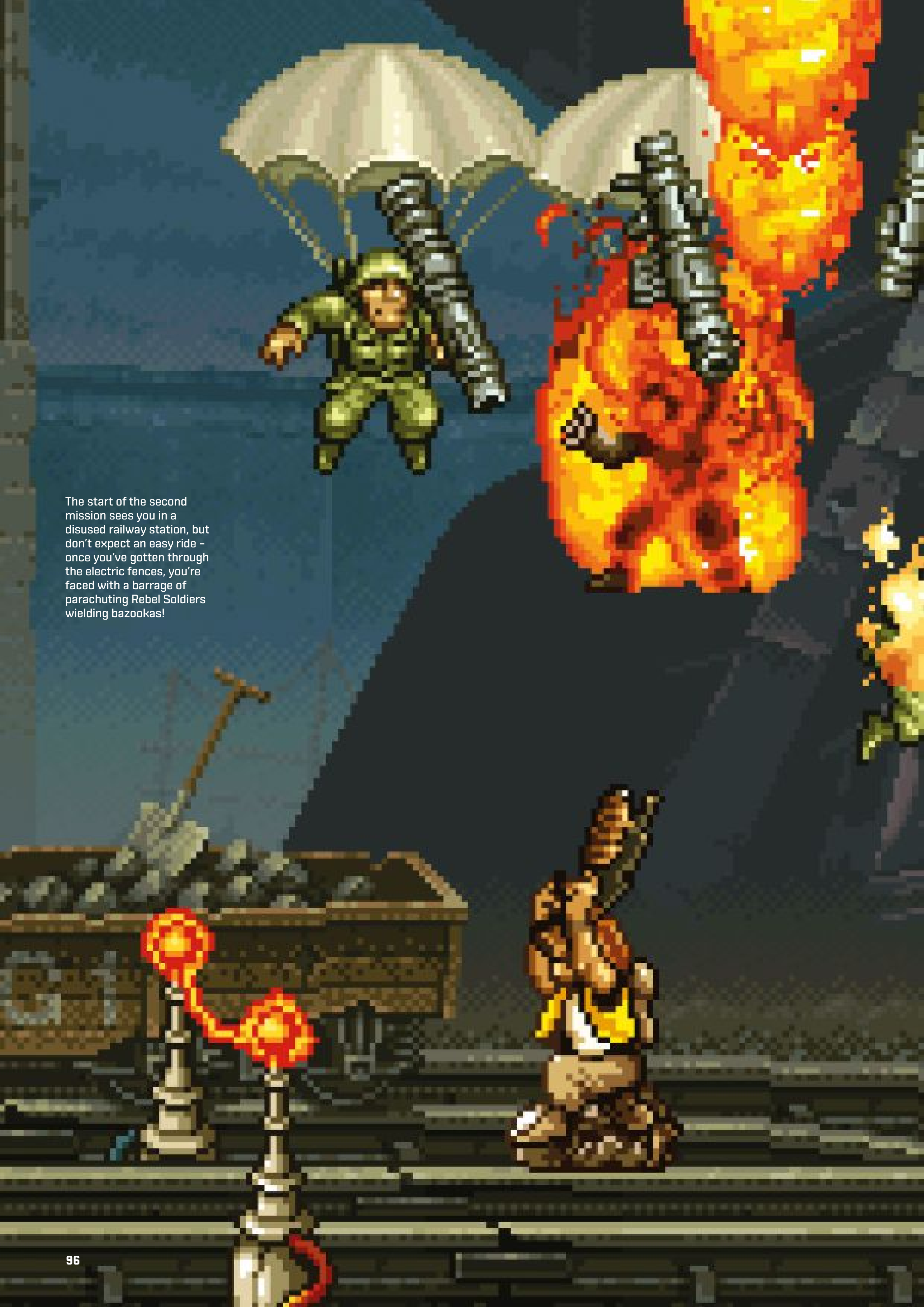
Bizarre artwork for 60% machine, 40% human 'bio-boosted' Rebel Soldier. These sci-fi ideas would start making their way into the series by the time *Metal Slug 2* arrived.



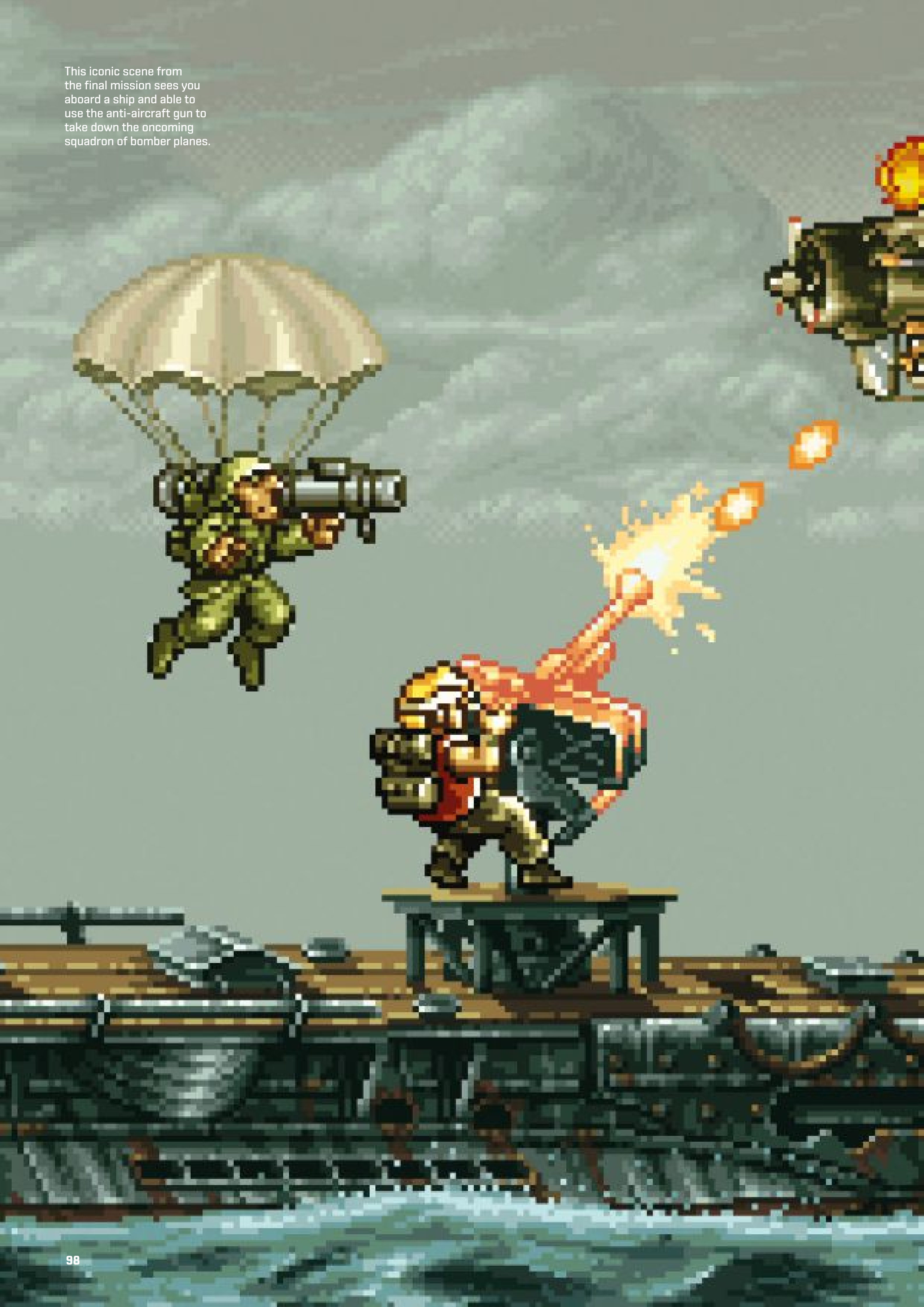
This rather extreme artwork really shows the design team's sense of humour; the oversized shell has hit the poor Rebel Soldier, causing a huge crater!

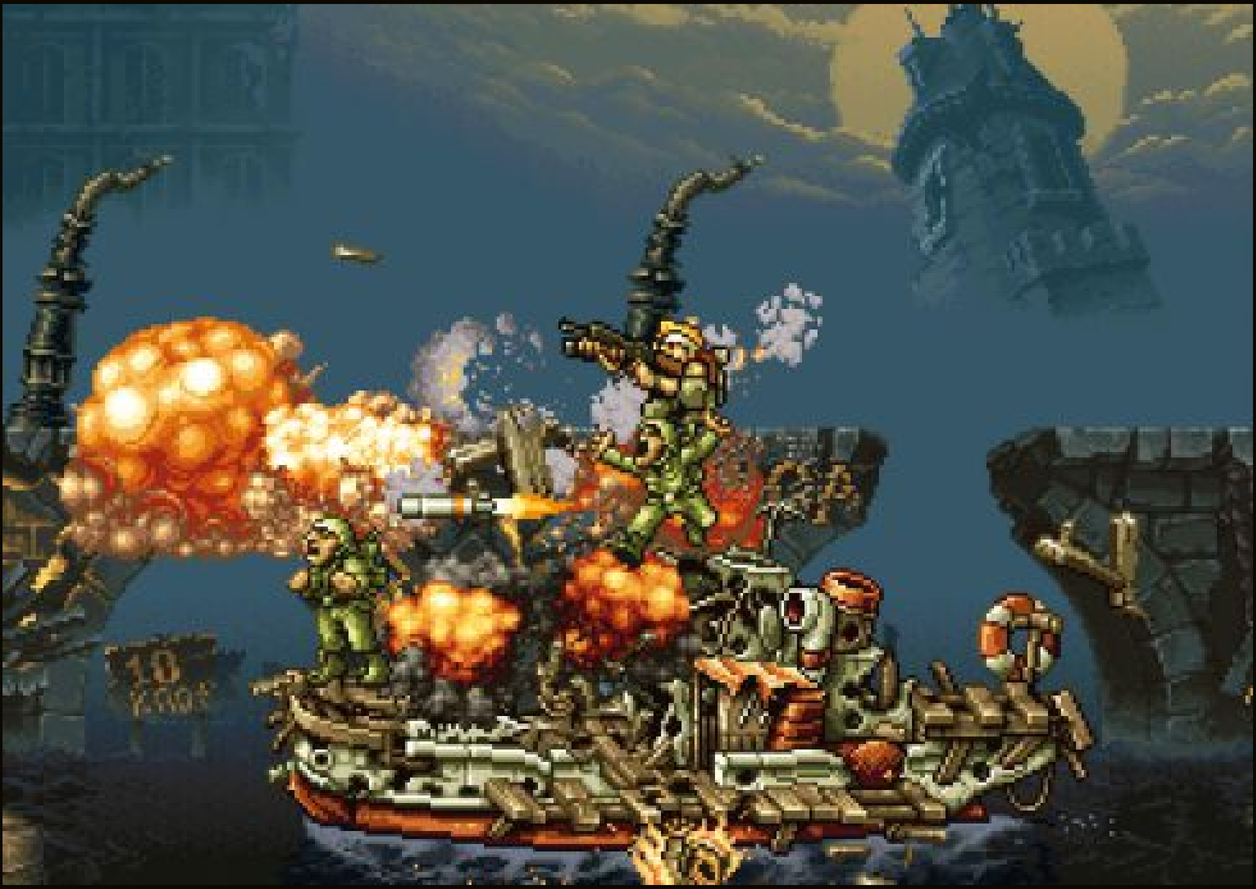


The first boss you encounter – 'T-770 Tetsuyuki' – is a huge flying gunship. It's so big that it doesn't even fit on the screen! Although relatively straightforward to destroy, you must be careful of its deadly laser cannon.

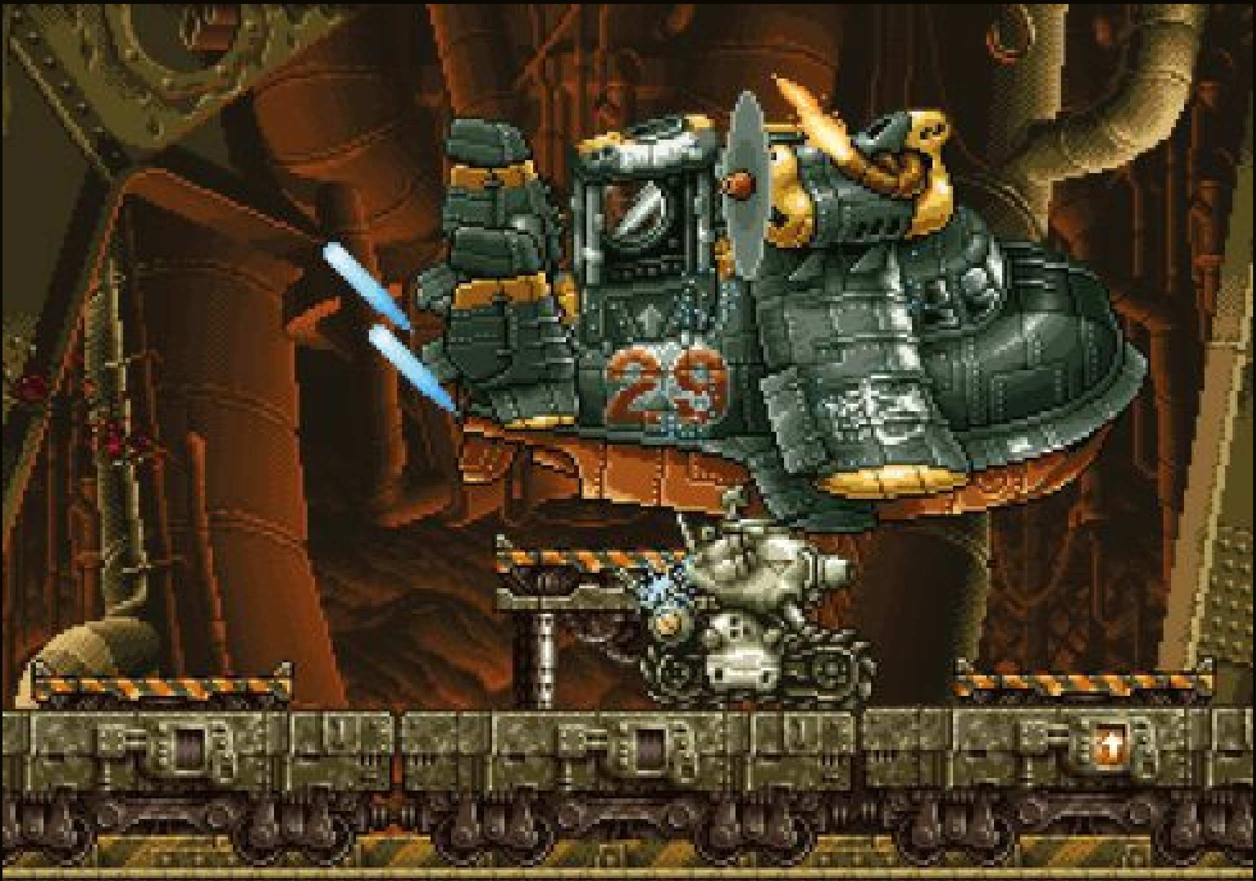


The start of the second mission sees you in a disused railway station, but don't expect an easy ride – once you've gotten through the electric fences, you're faced with a barrage of parachuting Rebel Soldiers wielding bazookas!

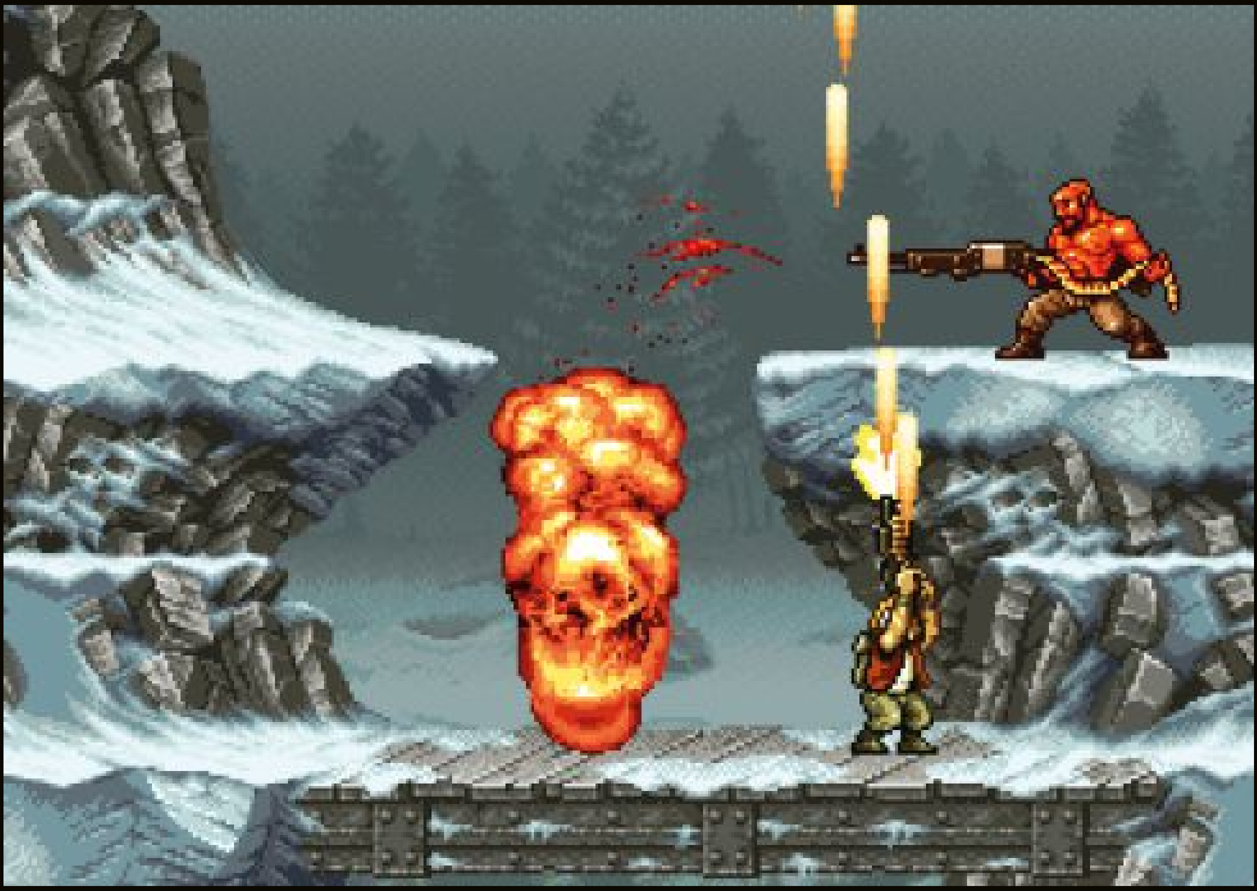

This iconic scene from the final mission sees you aboard a ship and able to use the anti-aircraft gun to take down the oncoming squadron of bomber planes.



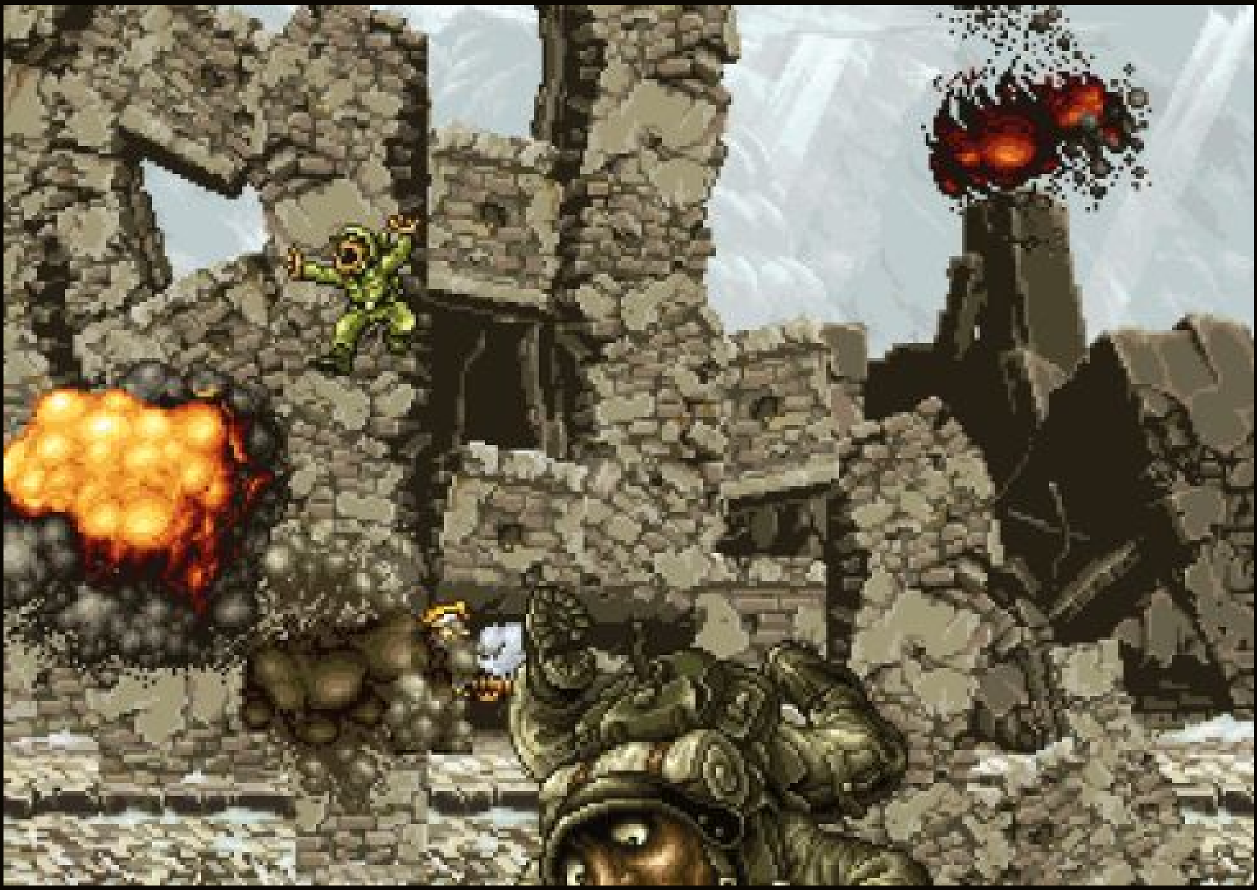
Marco comes under attack while on board one of the many Hammer-Yang boats during the second mission. Just don't forget to jump off before it sinks!



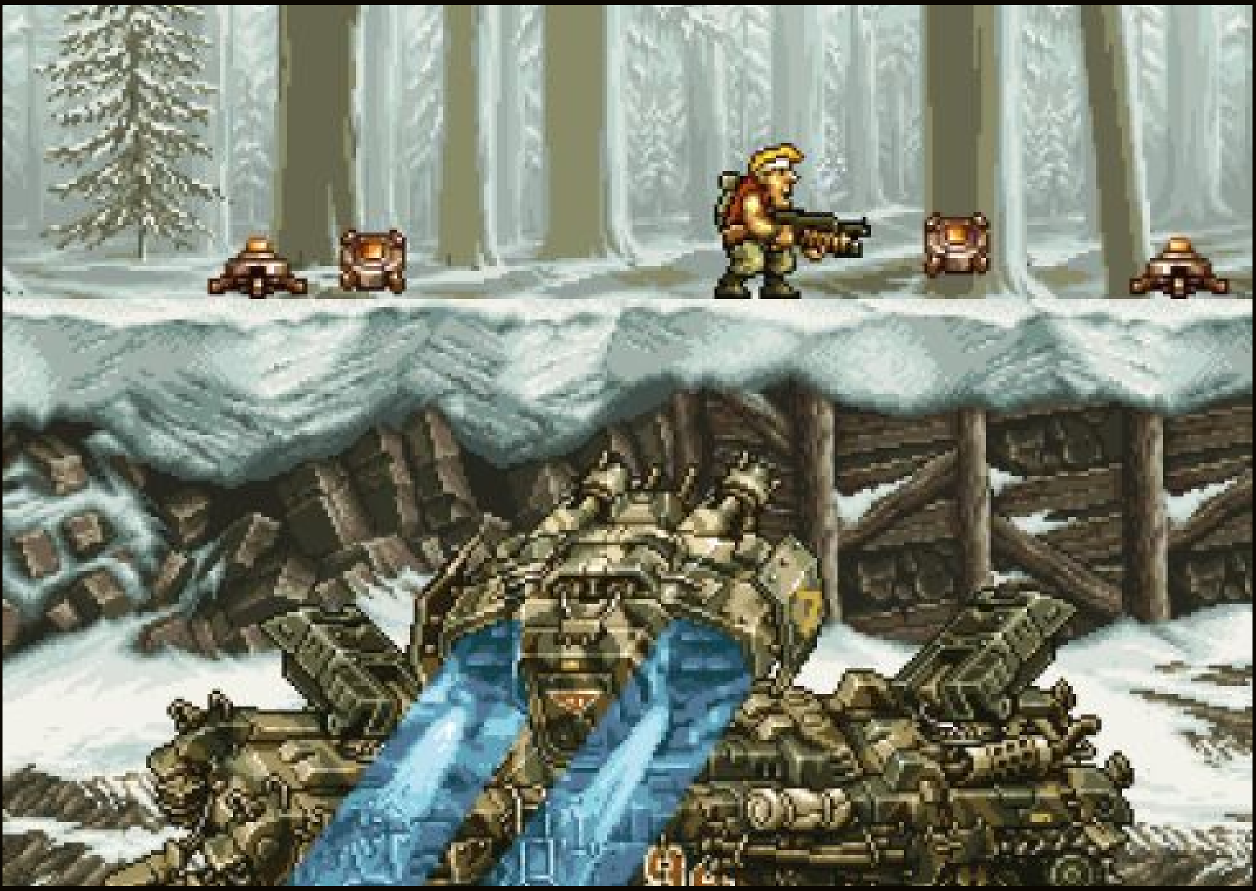
At the end of the second mission, you come face-to-face with Morden for the first time as he fires rockets at you from his Hairbuster Riberts aircraft.



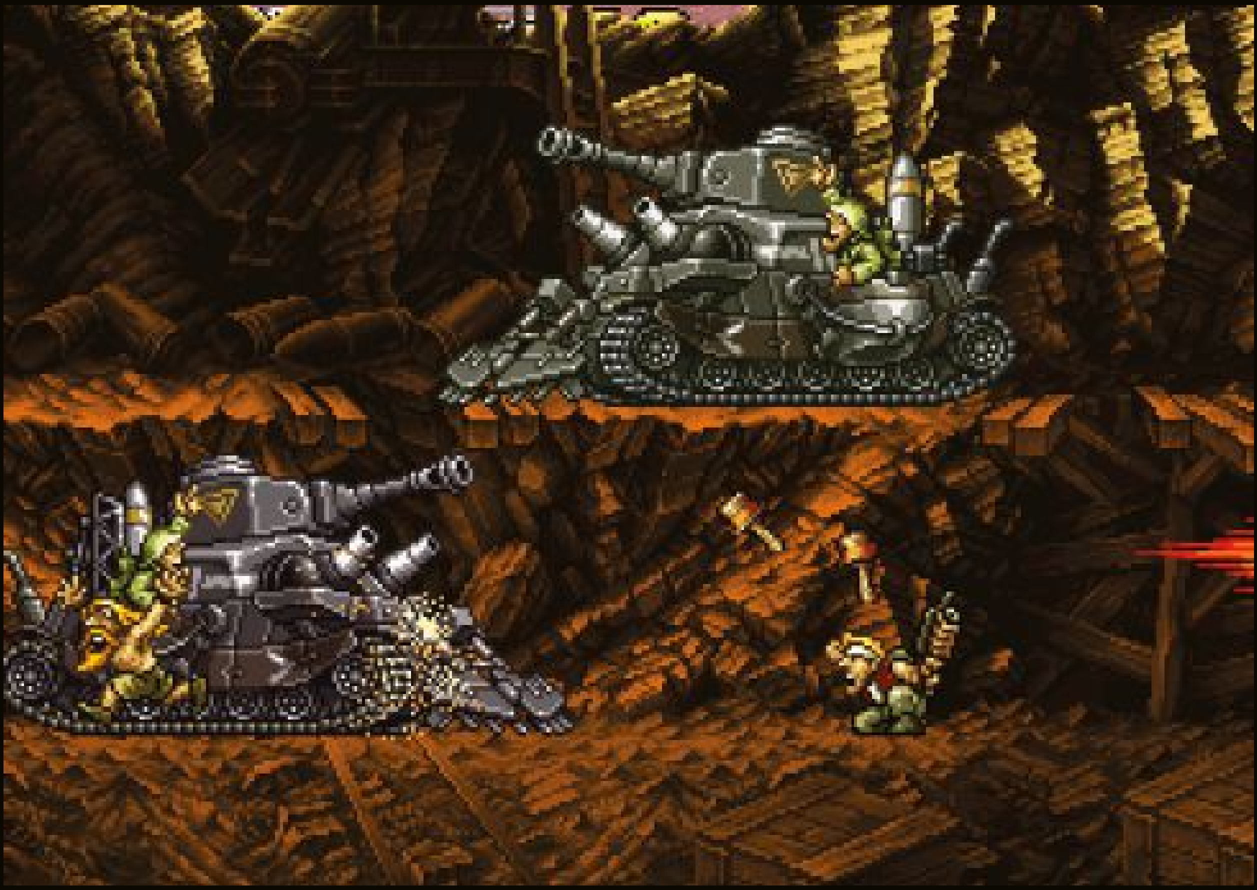
At the top of the ice mountain, you take on the mini-boss Allen O'Neil, one of Morden's most trusted soldiers. The more shots he takes, the redder he gets – but beware, he also gets more aggressive.



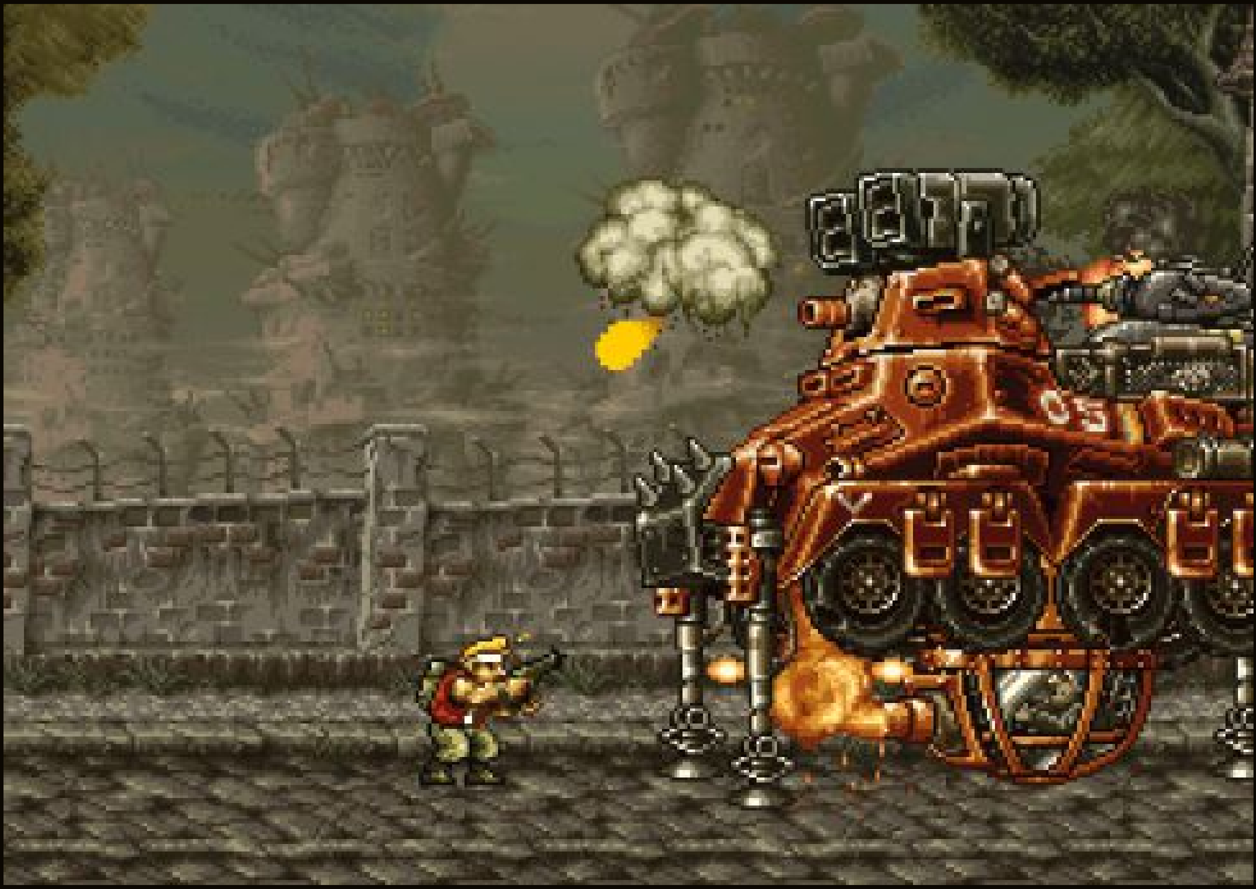
This dramatic scene takes place towards the end of the third mission, when the Rebel mountain base explodes. If you're lucky, a soldier may spectacularly fly towards the screen during the blast!



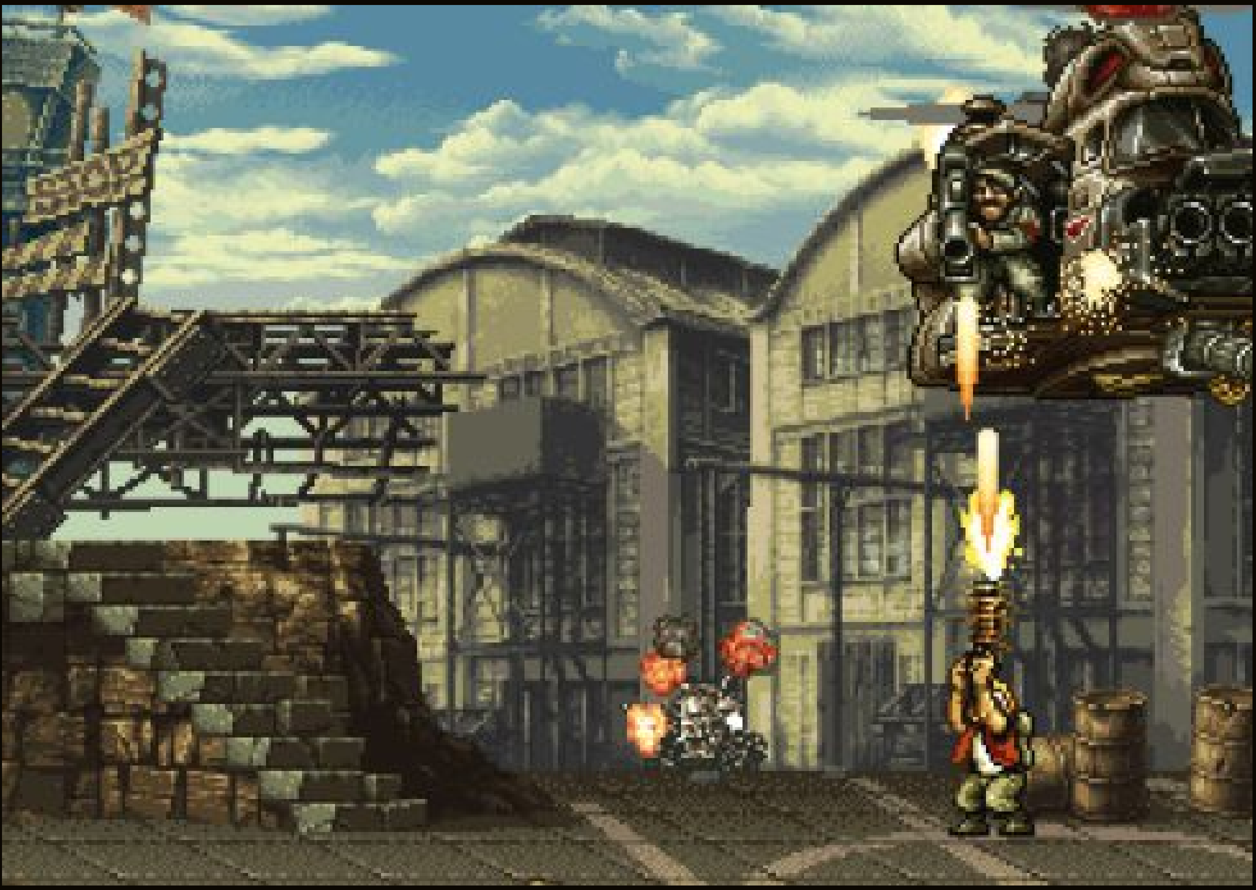
The third mission end boss is the huge Tani Oh tank. This is best defeated using the SV-001, as the Vulcan cannons are ideal for raining down continuous gunfire from above.



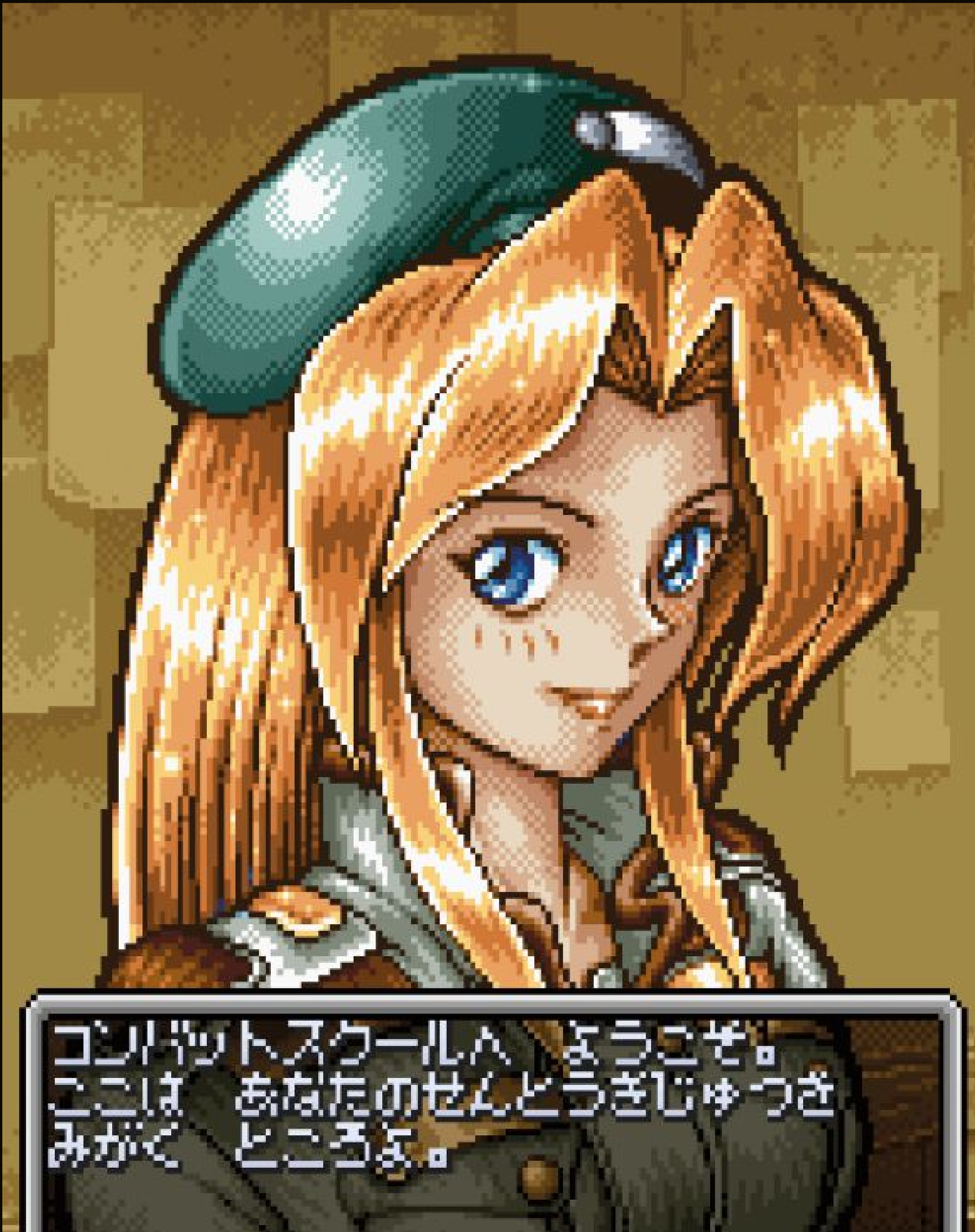
The Shoe & Karn tanks are a double boss at the end of the fourth mission. Shoe makes an appearance in *Metal Slug X* as a mini-boss.



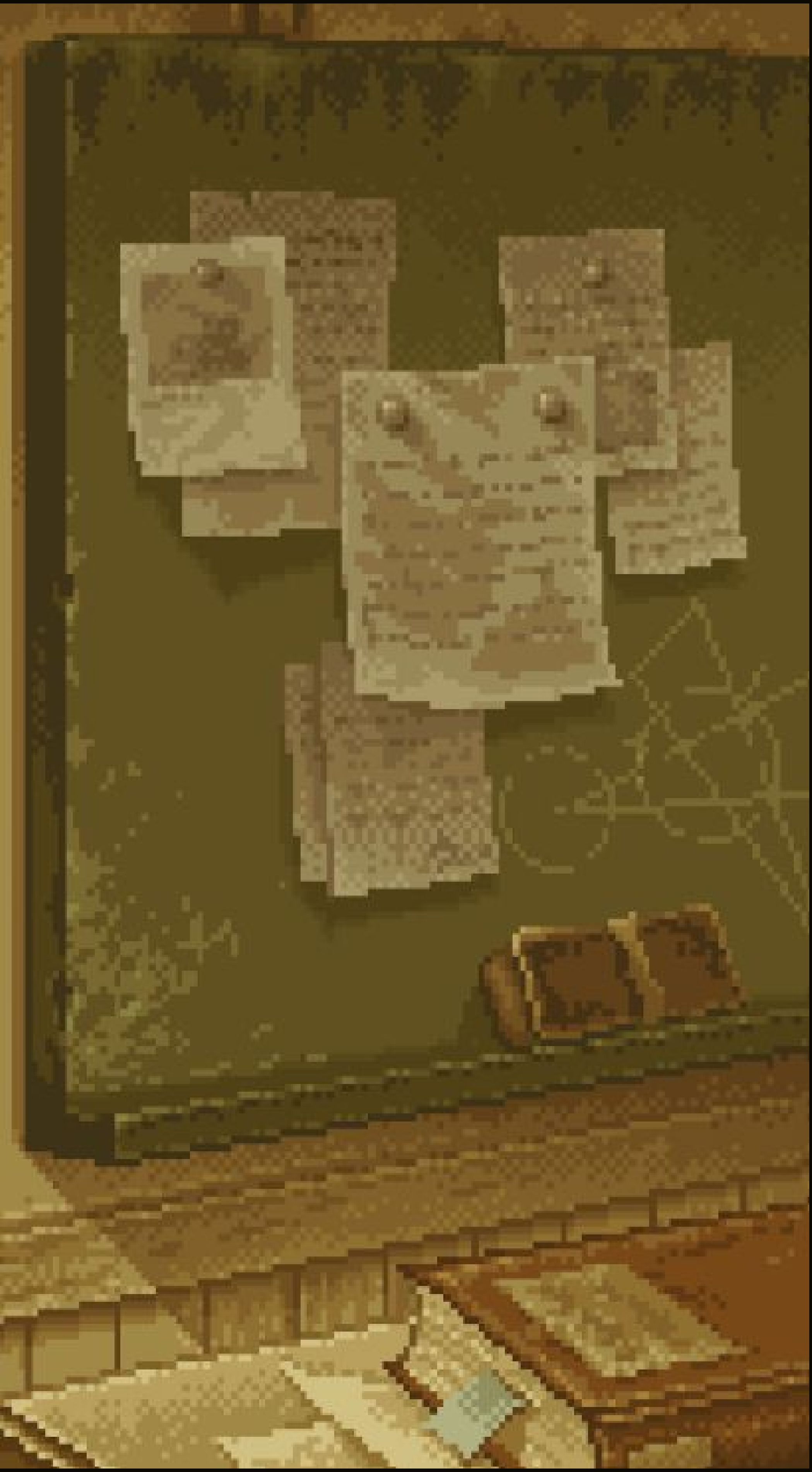
The Iron Nokana is an armoured truck with various modifications, such as a Girida-O tank mounted to the rear, and ability to raise itself on stilts to reveal a deadly flamethrower.



The final boss in *Metal Slug* is the Hi-Do gunship. With Donald Morden on board, you must destroy the ship to complete the game. Its varied attacks get faster the more damage it takes.

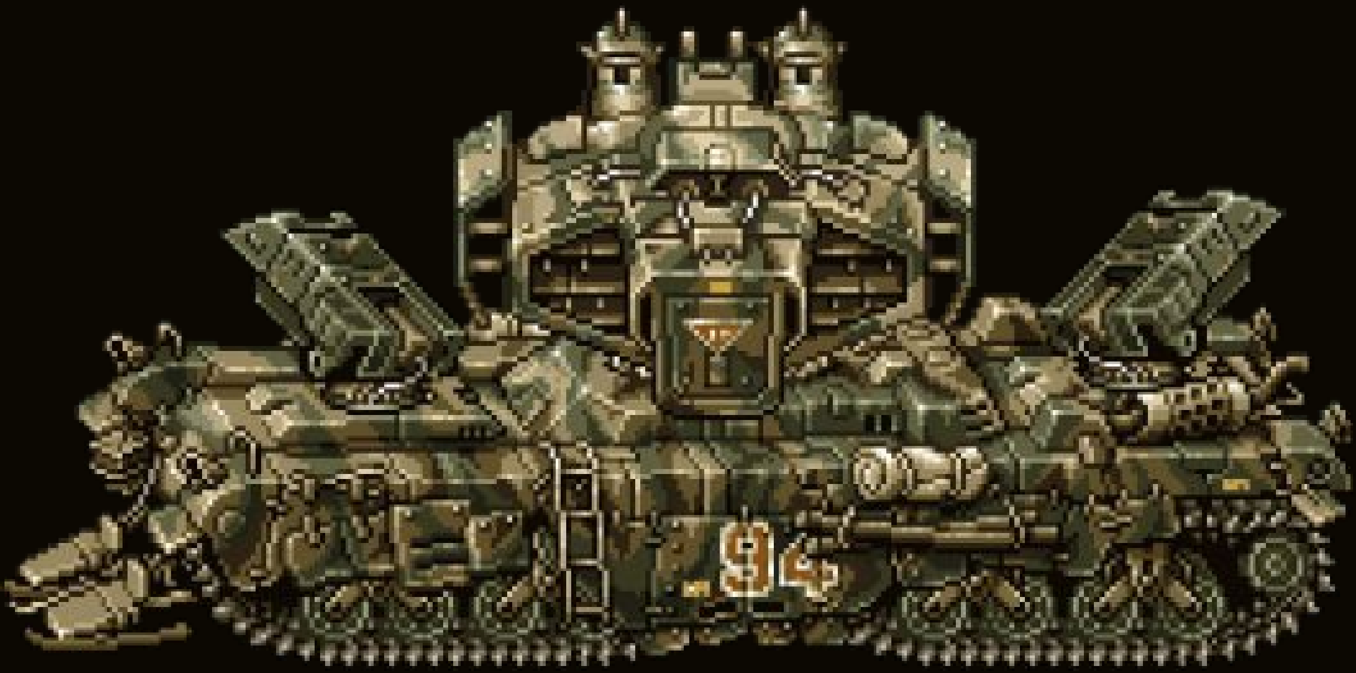


コンバットスクールへ　ようこそ。
ここは　あなたのせんとうぎじゅつを
みがく　ところよ。

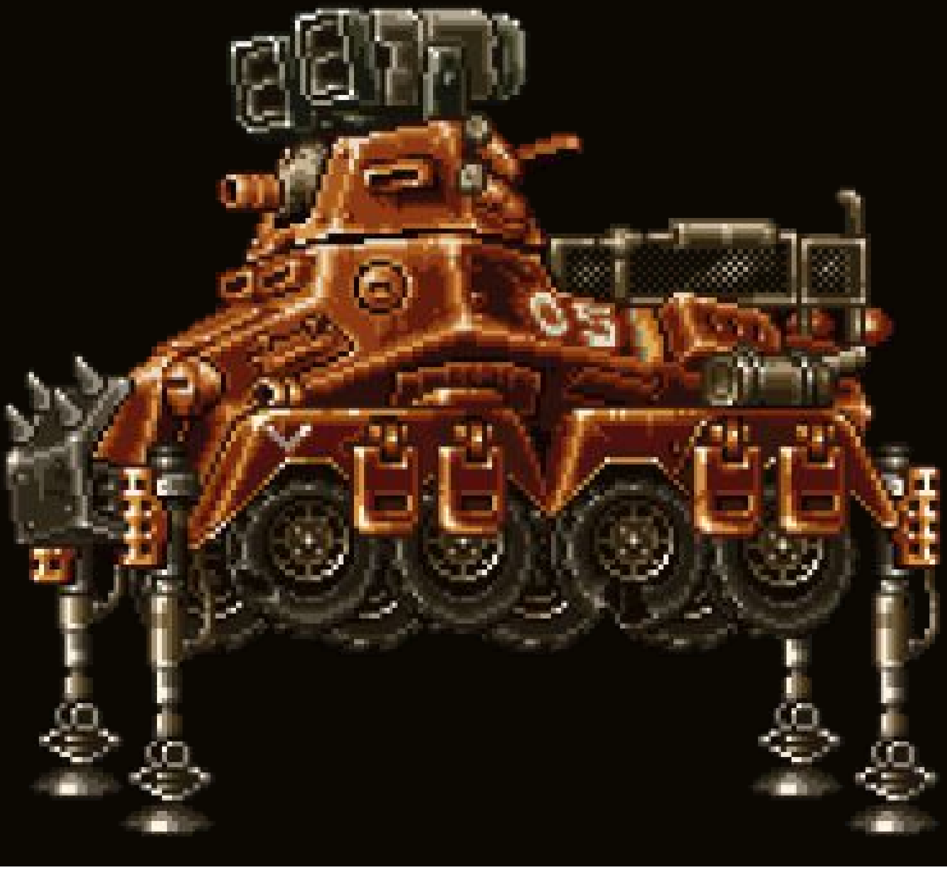


The home CD releases of *Metal Slug* contain a ‘Combat School’ mode which is run by instructor Sophia Greenville. Here, you can hone your skills by taking part in various missions, such as time trials or completing the game without losing a life. You start as a lowly recruit and can work your way up to ‘Super Devil’ rank, which turns your skin green and gives you more powerful weapons.

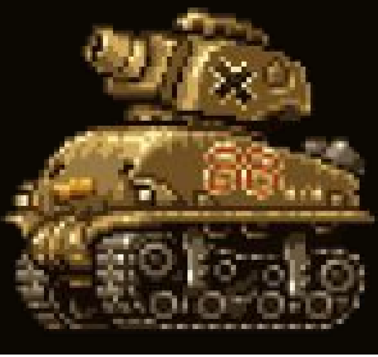
A selection of boss and vehicle sprites, all of which not only have a consistent look, but their own unique personalities, weapons and movements. They're like characters in their own right.



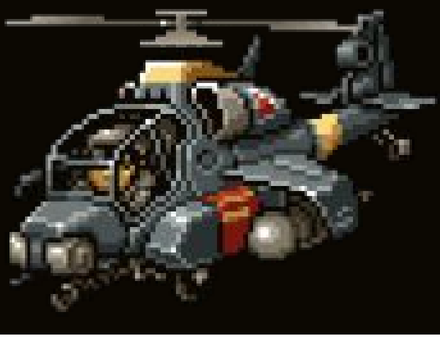
Tani Oh tank (Mission 3 boss)



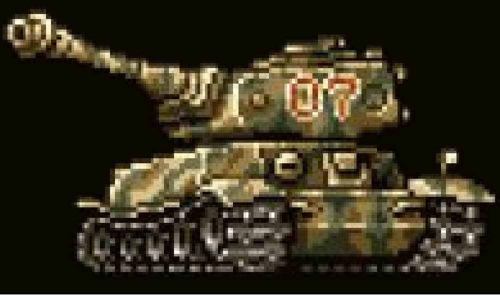
Iron Nokana truck (Mission 5 boss)



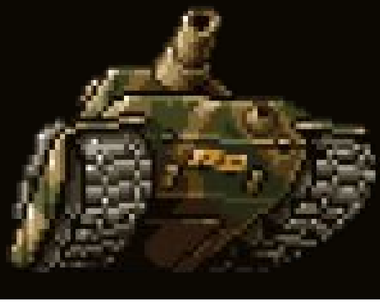
Di-Cokka tank



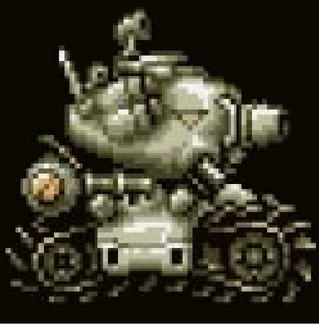
R-Shobu helicopter



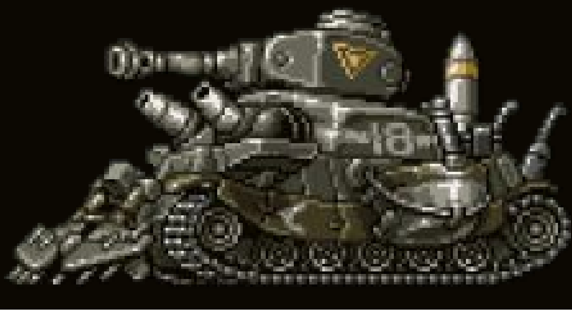
Iron Iso tank



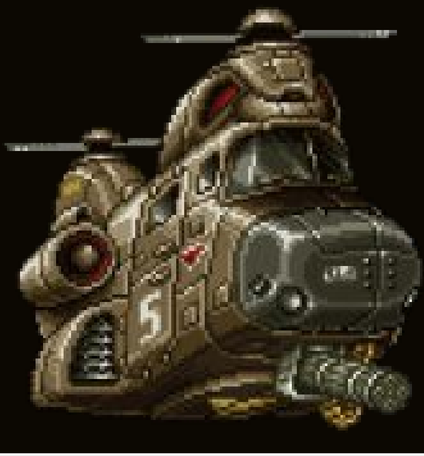
Bull Chan tank



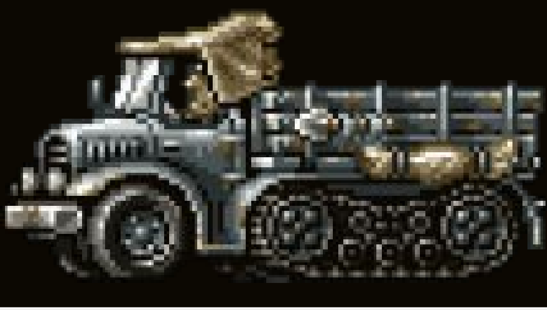
SV-001 tank



Karn tank

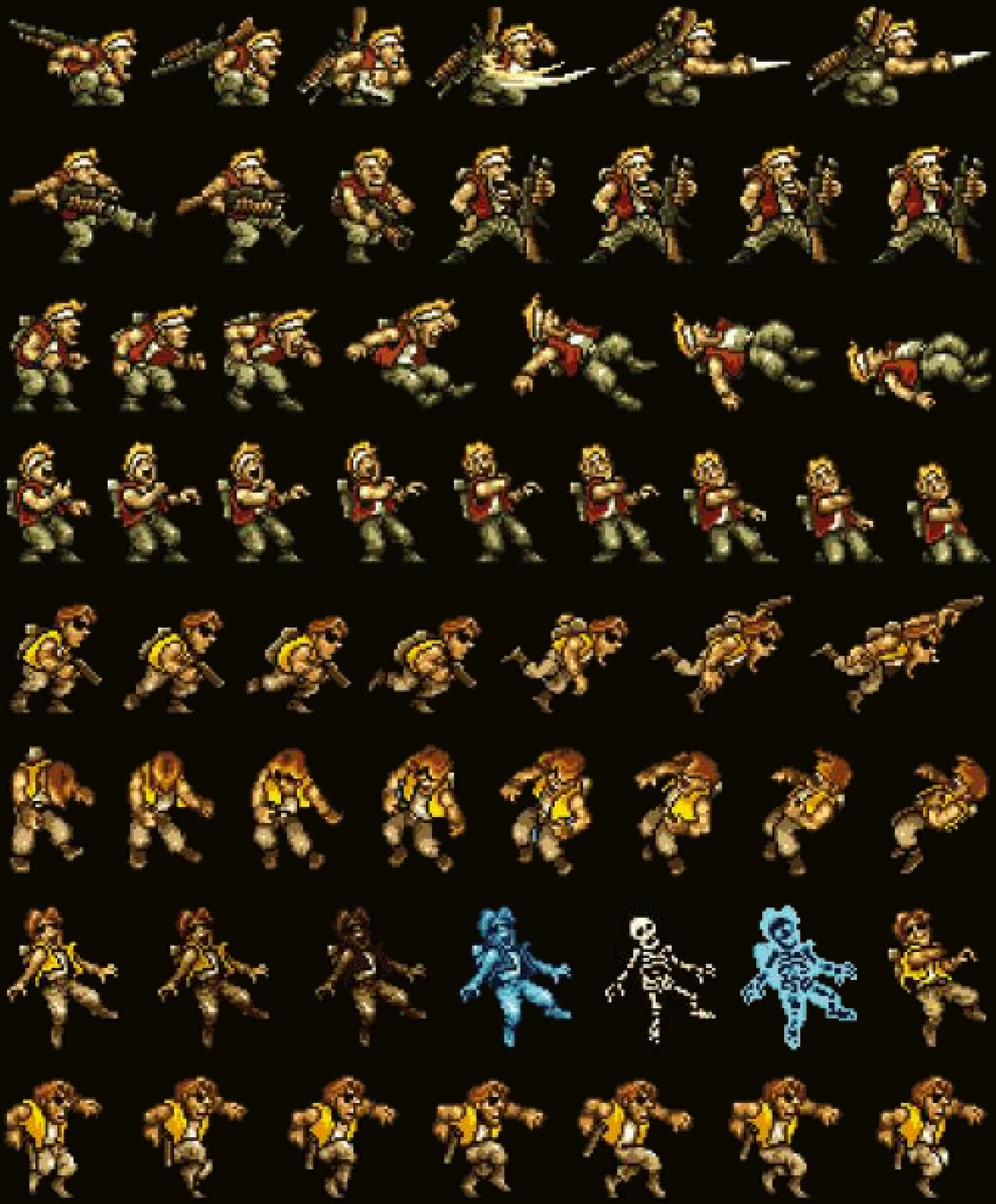


Hi-Do gunship (Final Mission boss)

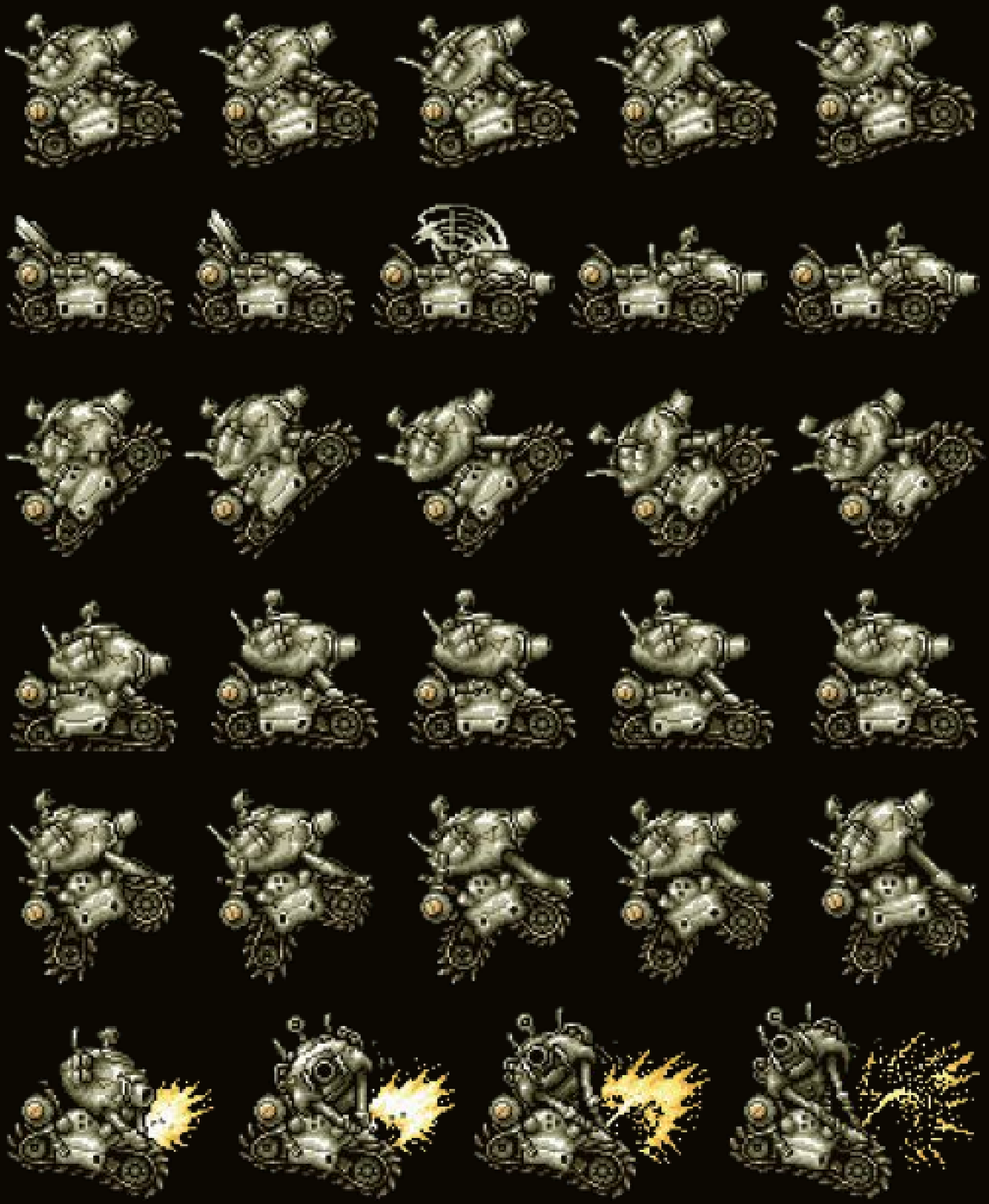


Landseek truck

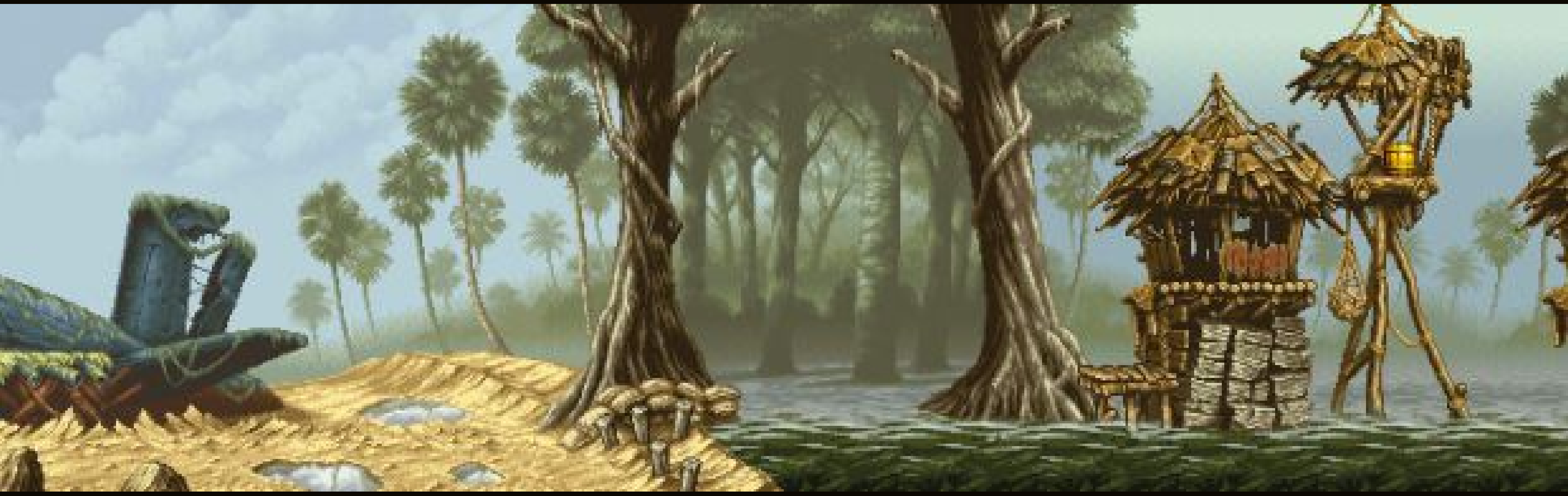
A selection of sprites for Marco Rossi (top) and Tarma Roving (bottom). The various poses, facial expressions and frames of animation showcase the incredible attention to detail that gives *Metal Slug* its unique look.



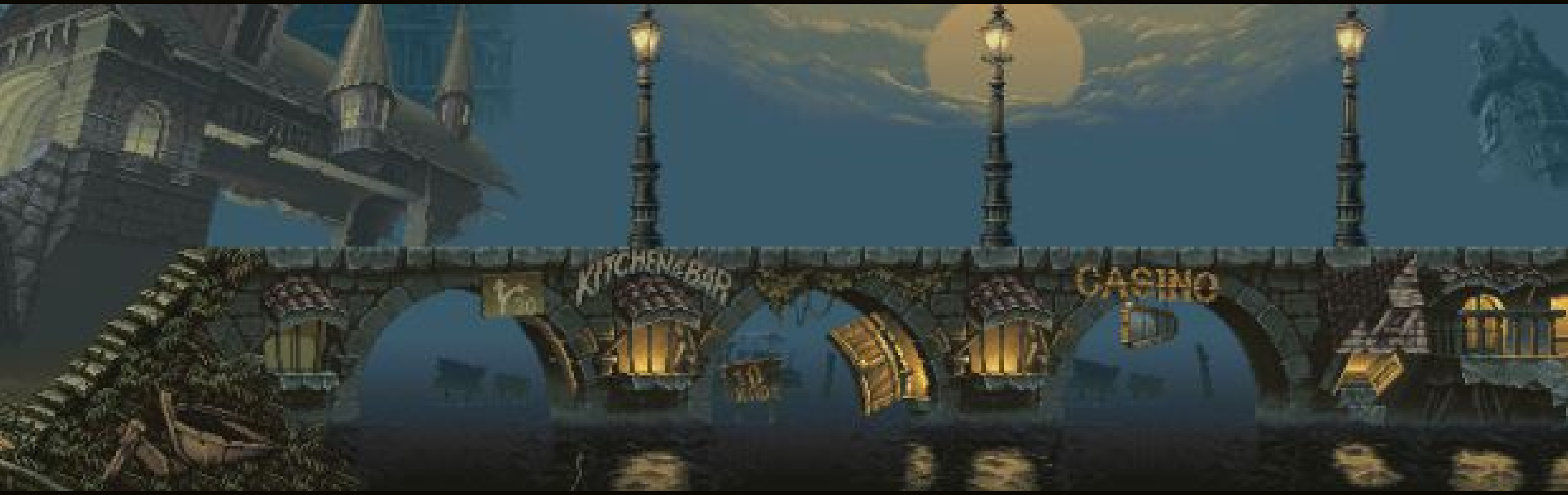
Just a small selection of the literally hundreds of animation frames drawn for the SV-001. These detailed movements add character and personality on a par with the other human sprites.



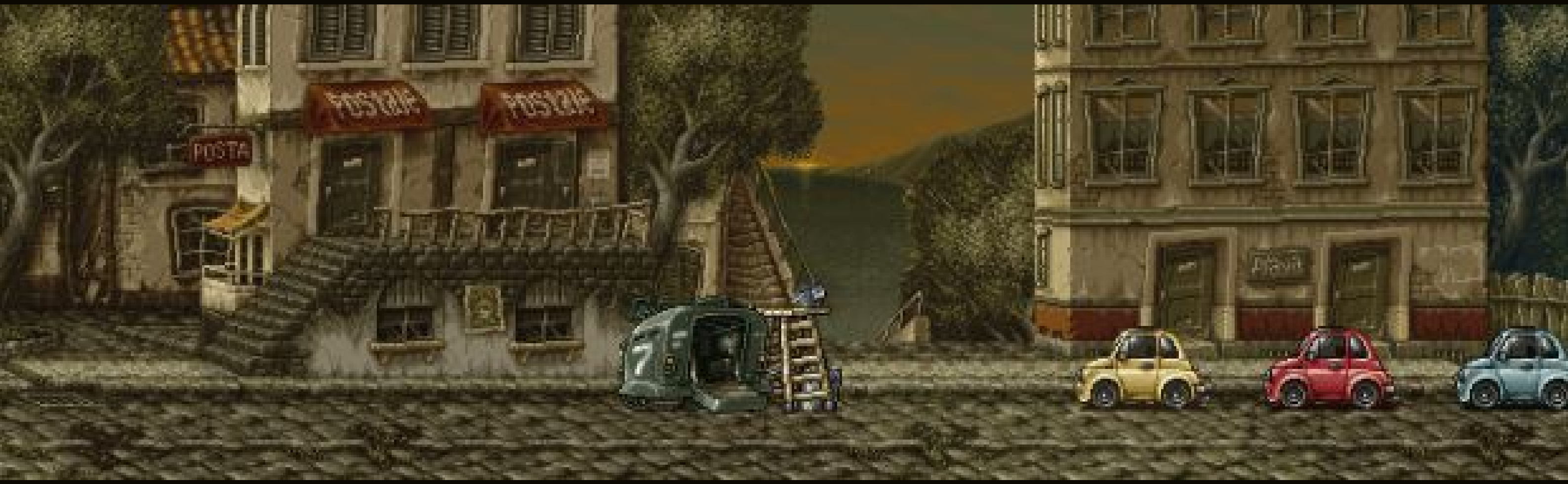
Various level map sections from *Metal Slug*; all are incredibly detailed, quite often with animated scenery that can be destroyed. Every background was hand-pixelled by the artists at Nazca.



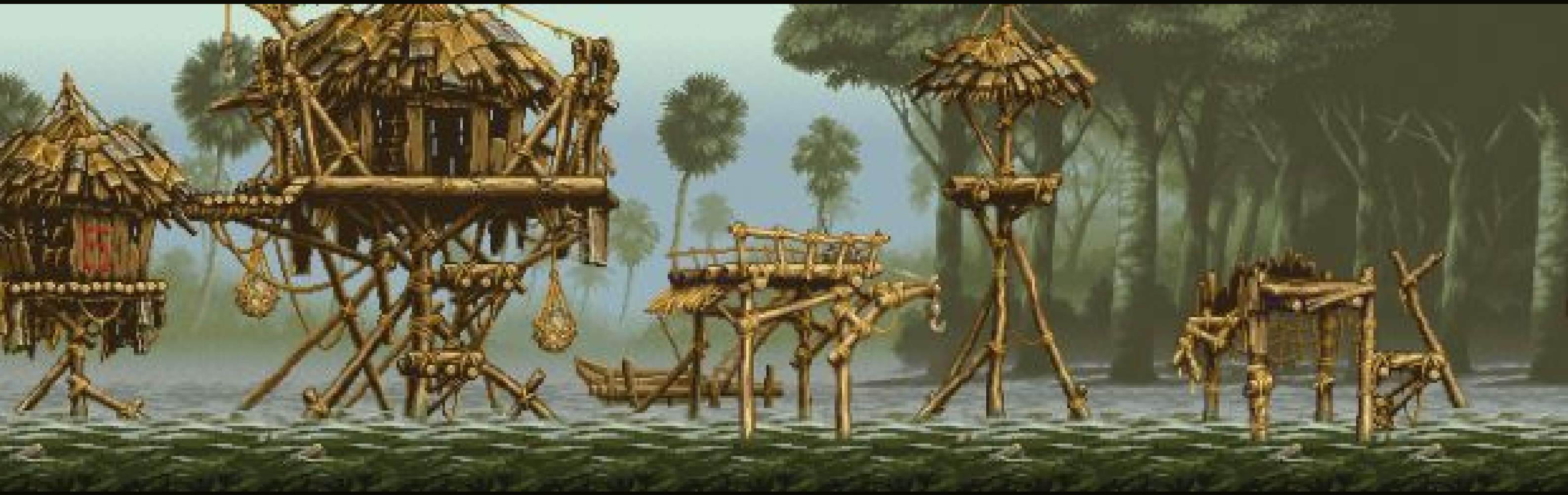
Mission 1

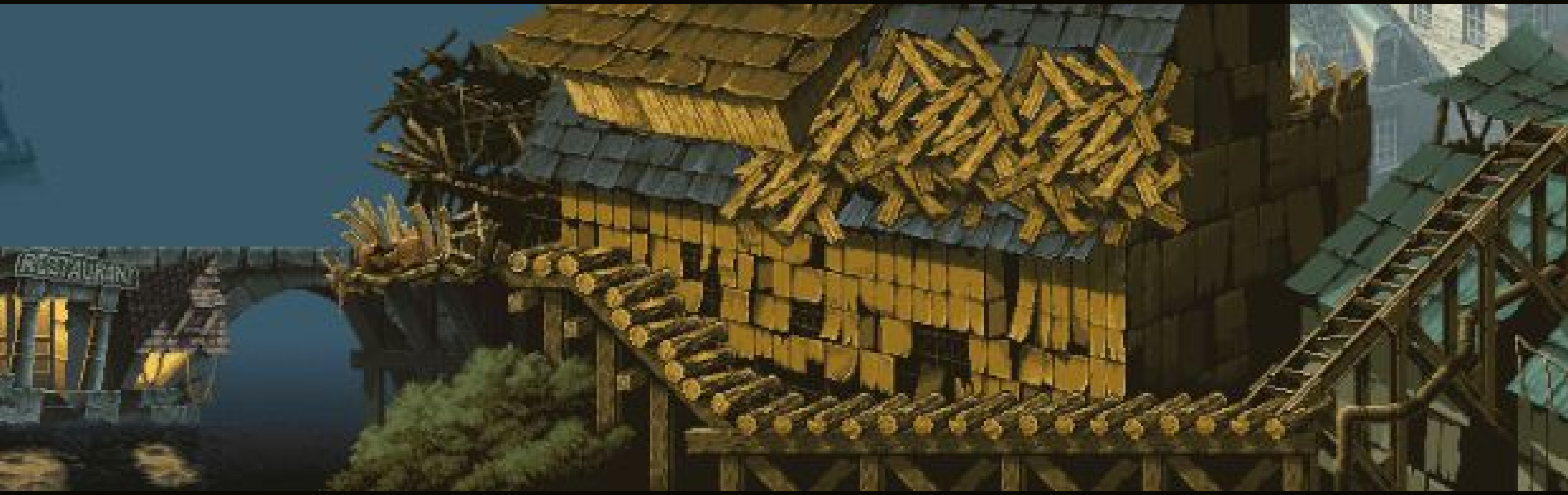

KITCHEN&BAR
CASINO

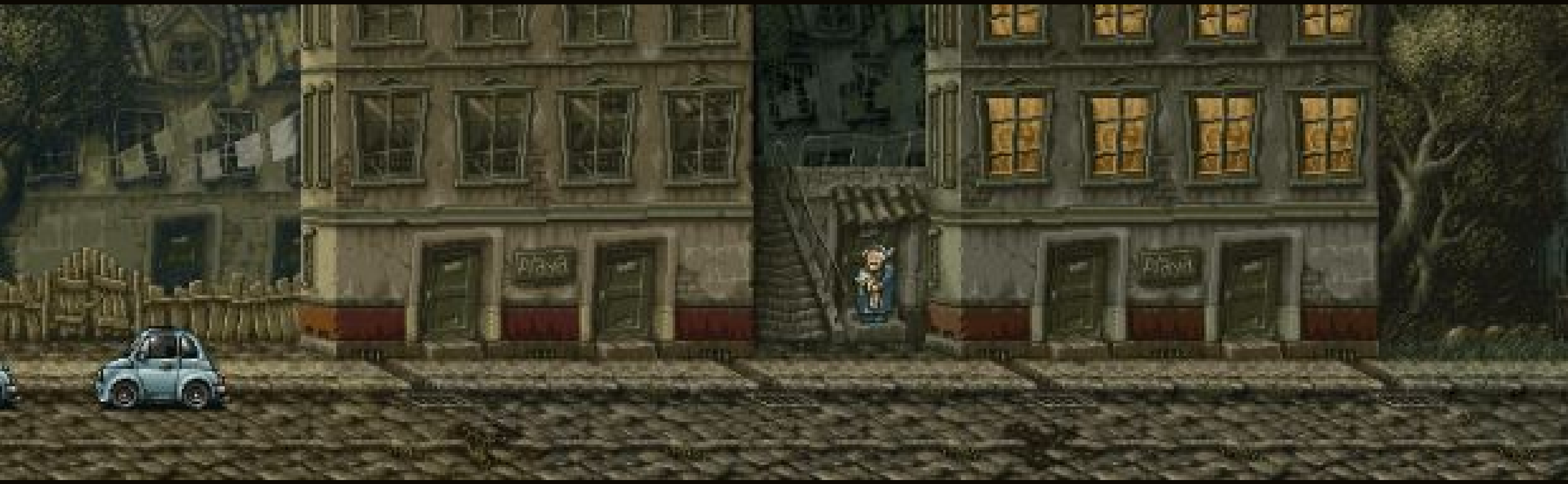
Mission 2


POSTA
POSTA
POSTA

Mission 5




RESTAURANT



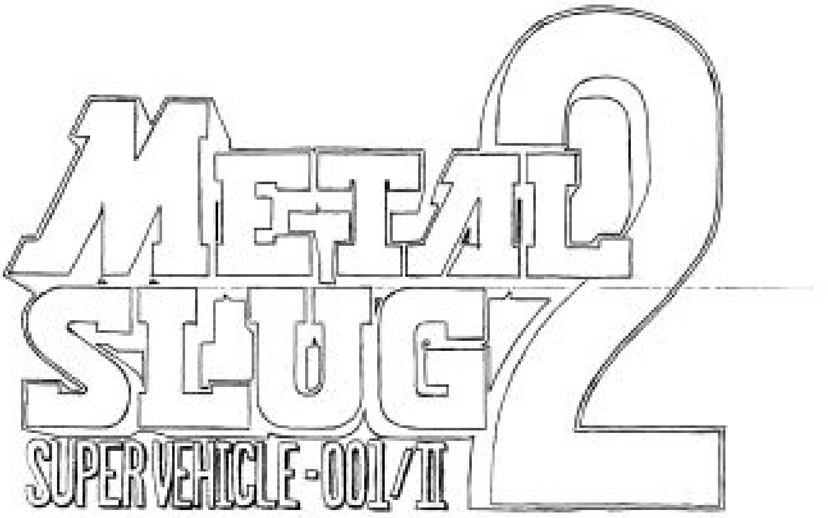
First released: 1998 / Players: 2 / Developed by: SNK / Published by: SNK

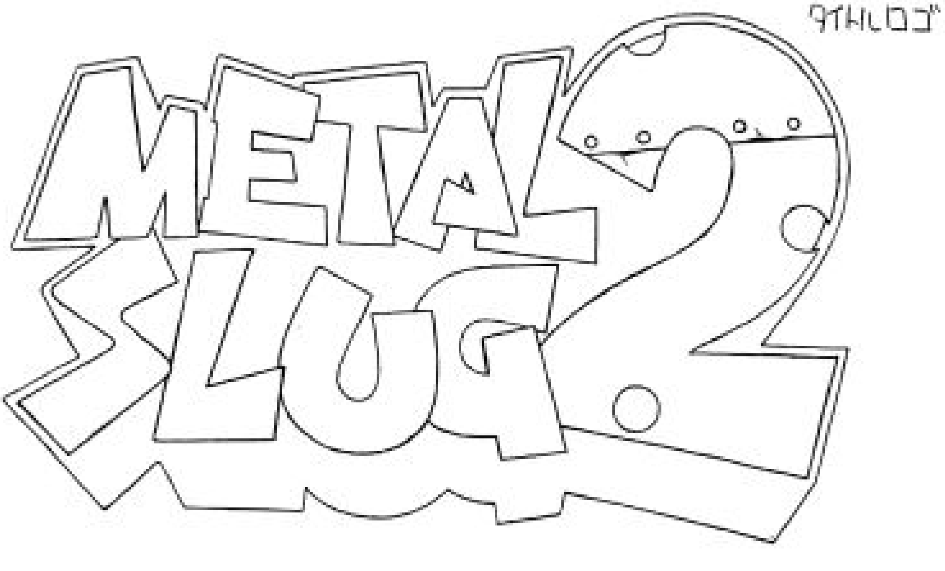
METAL SLUG 2
SUPER VEHICLE - 001 / II

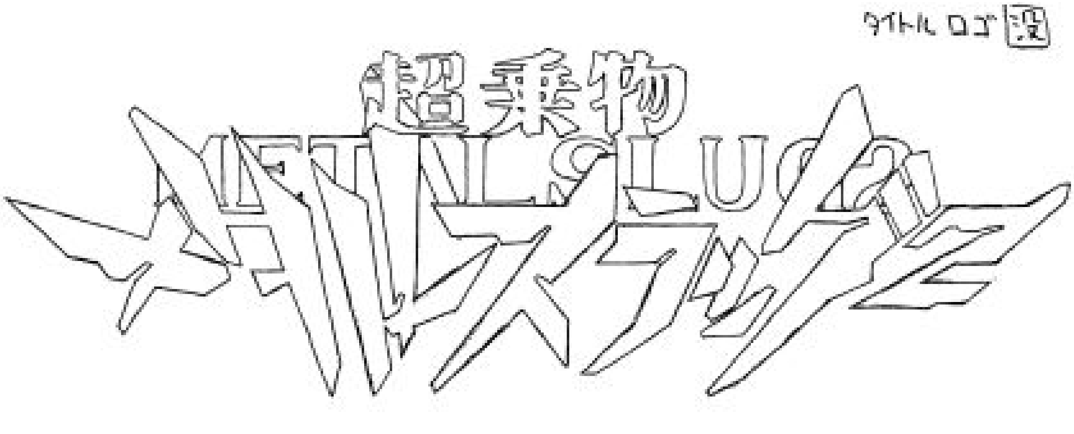
ANDROID ARC IOS NG NGCD WII
SWITCH PS3 PS4 PSP PC ONE

The critical and commercial success of the first game made a sequel inevitable, and, in 1998, SNK released *Metal Slug 2* on its NEOGEO hardware. As you might expect, it offered a raft of improvements, including four selectable characters – Marco Rossi, Tarma Roving, Eri Kasamoto and Fiolina Germi – as well as new weapons and three new modes of transport – the Camel Slug, Slugnoid and Slug Flyer – alongside the titular Metal Slug. Another change which reinforced the franchise's sense of humour was the ability to transform the player character into a mummy or cause their weight to balloon dramatically.

Some early logo designs for *Metal Slug 2*. The bottom logo bears a very strong resemblance to that of *Neon Genesis Evangelion*, a popular Japanese mecha-based anime.

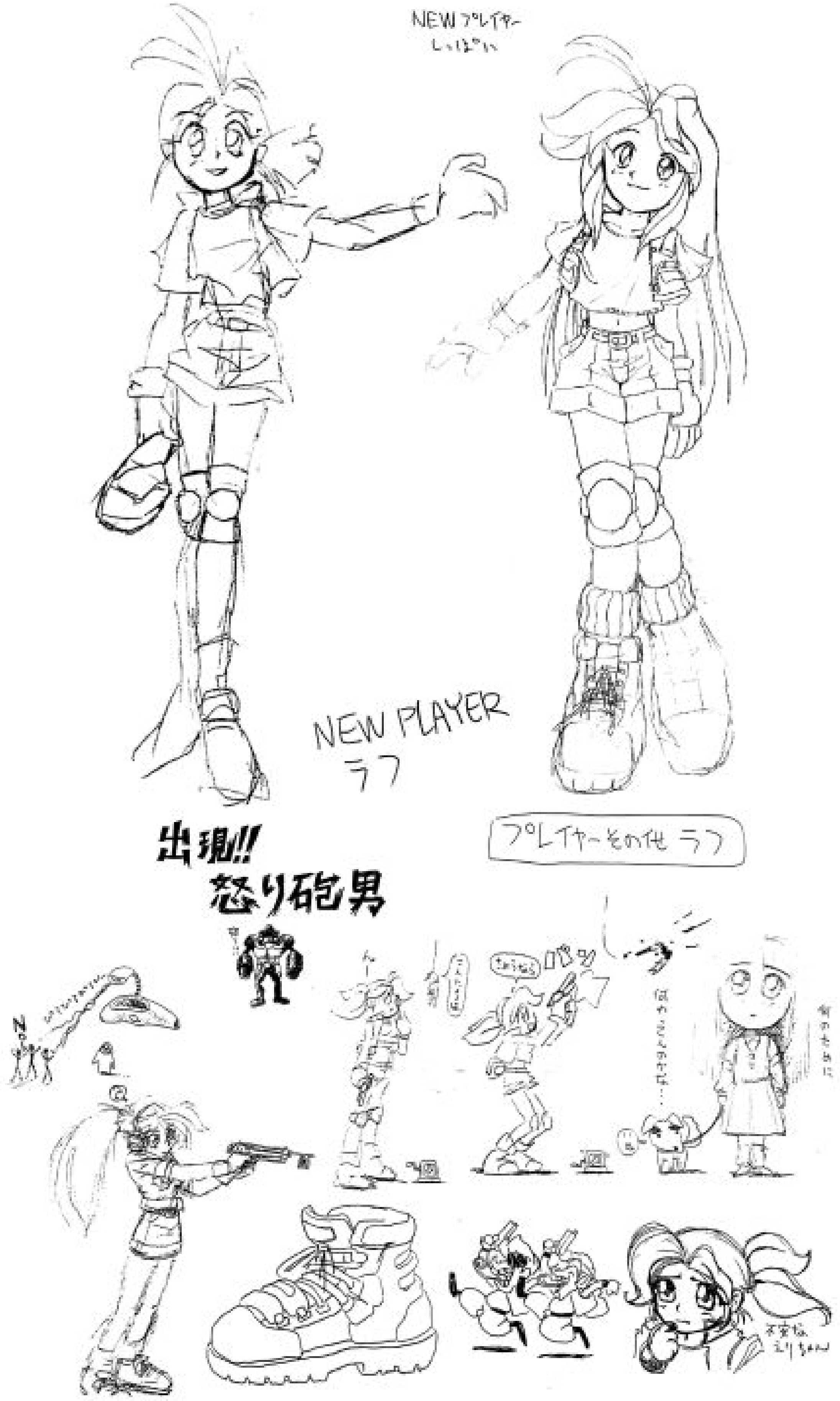

METAL SLUG 2
SUPER VEHICLE-001/II


タイトルロゴ
METAL SLUG 2

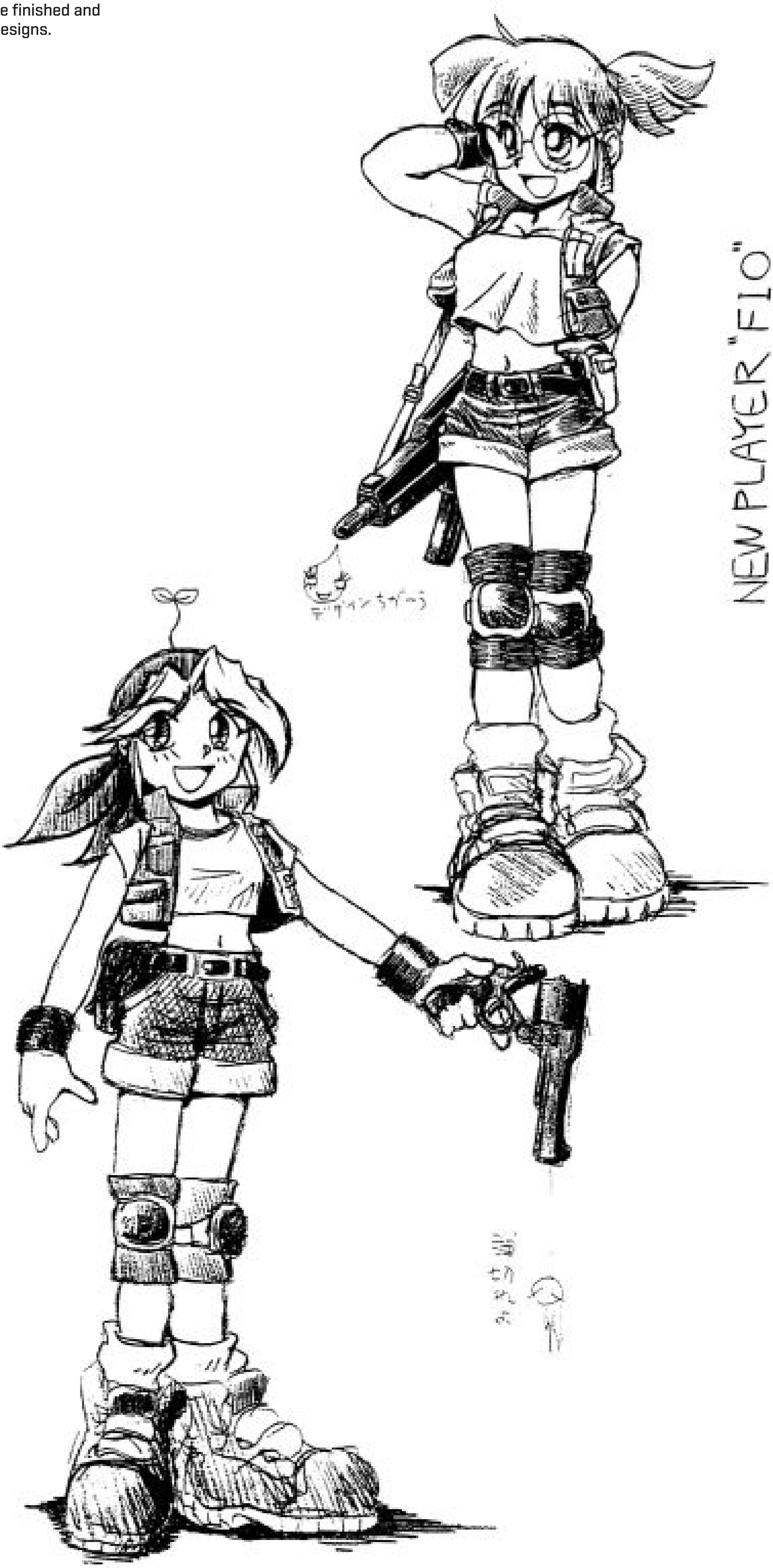

タイトルロゴ 没
超乗物
METAL SLUG 2
メタルスラッグ2

タイトルロゴ 没

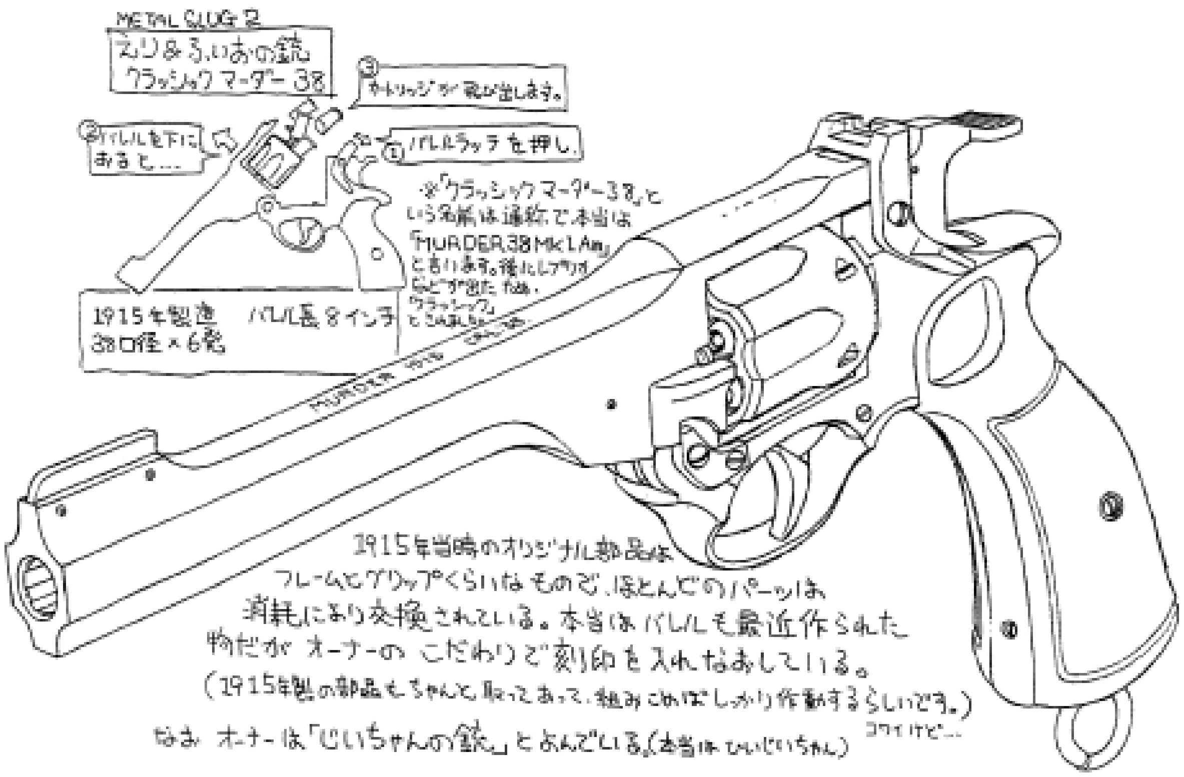
Early rough design sketches for new players Fio Germi and Eri Kasamoto. The top-right image is tagged 'しっぱい' which translates as 'failure'.

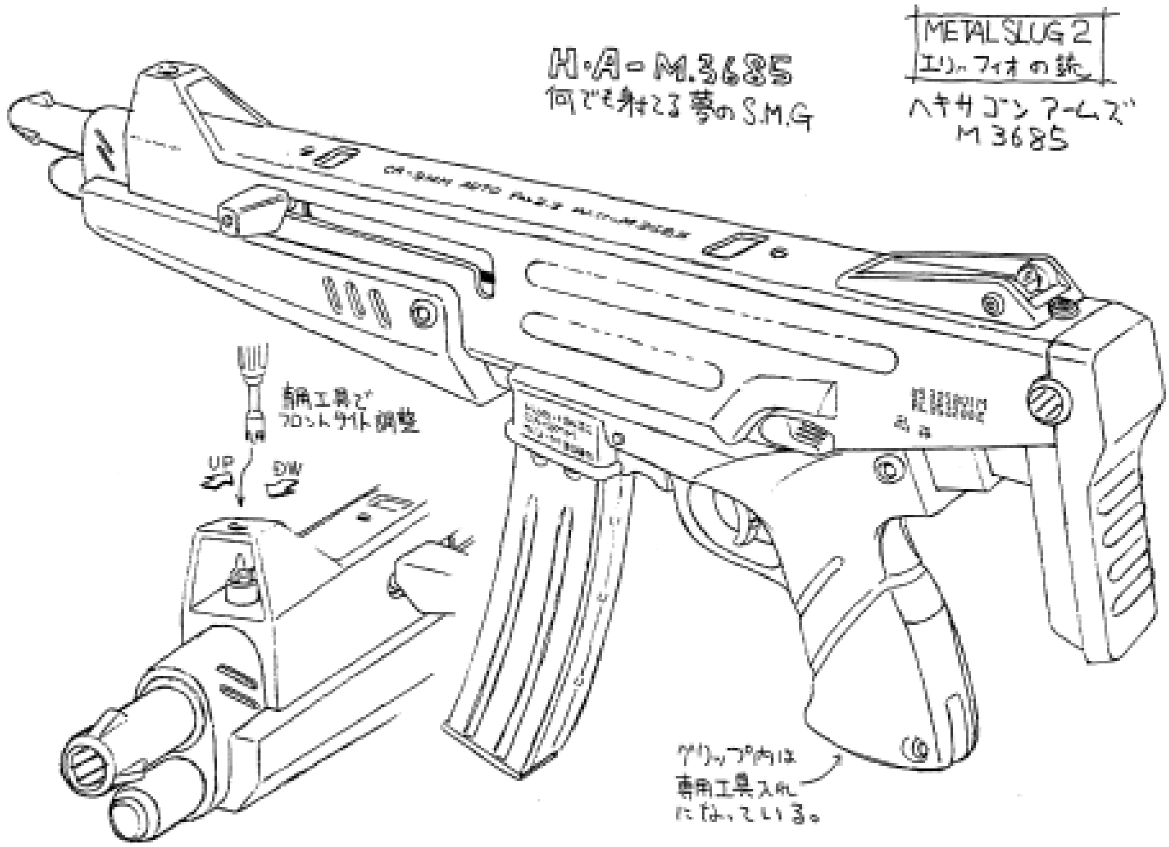

NEWプレイヤー
しっぱい
NEW PLAYER
ラフ
出現!!
怒り砲男
プレイヤーその他 ラフ
ん～
パシッ
何のために
不安な
えりちゃん

More concept art for Fio and Eri, this time looking much more finished and very close to the final designs.

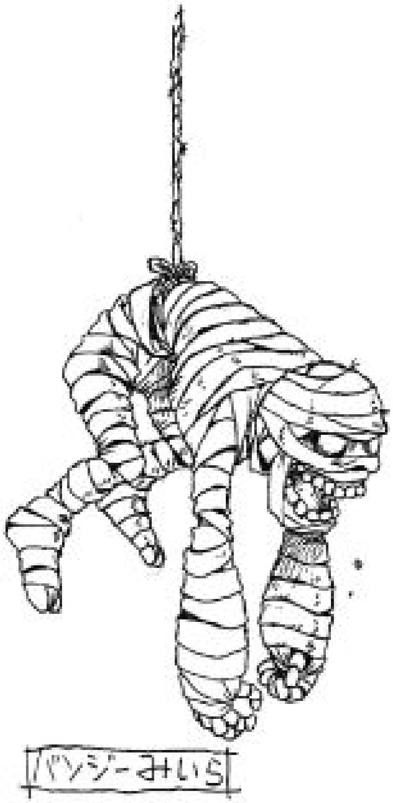

NEW PLAYER "FIO"
デザインちがーう
NEW PLAYER "ERI"

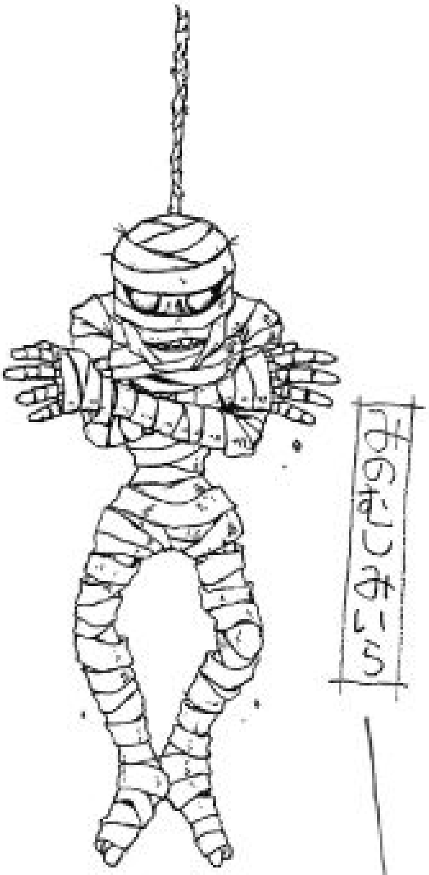
Detailed designs for the Murder Model-1915 .38 (top) and M-3685 (bottom), both of which are loosely based on real-world military firearms.

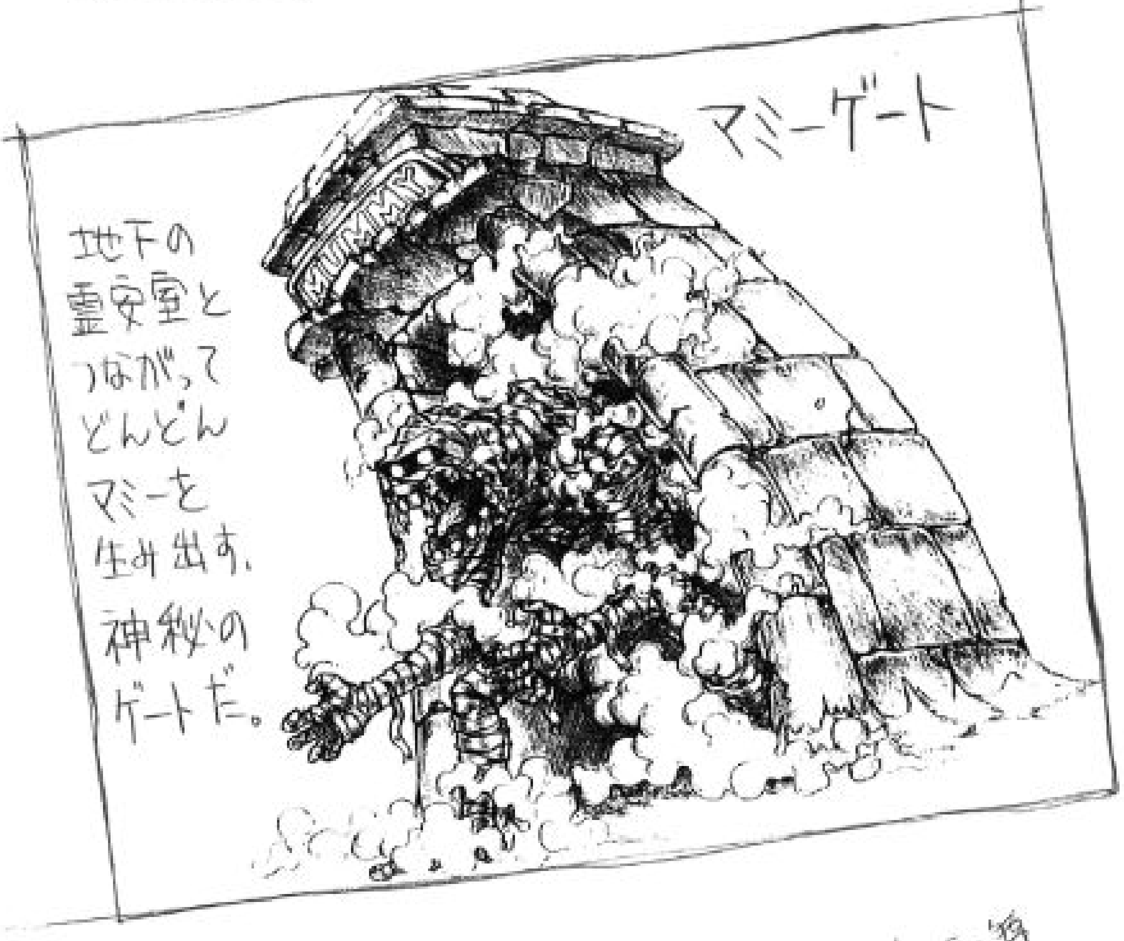

METAL SLUG 2
えり&ふぃおの銃
クラッシック マーダー 38
③カートリッジが飛び出します。
②バレルを下におろすと…
①バレルラッチを押し、
※「クラッシック マーダー38」という名前は通称で本当は「MURDER 38 Mk1 A」と言います。後にレプリカなどが出たため、クラッシックとよばれる。
1915年製造 バレル長8インチ
38口径×6発
MURDER 1915
1915年当時のオリジナル部品は フレームとグリップぐらいなもので、ほとんどのパーツは 消耗により交換されている。本当はバレルも最近作られた 物だが オーナーの こだわりで刻印を入れなおしている。
（1915年製の部品もちゃんと取ってあって、組みこめばしっかり作動するらしいです。）
なお オーナーは「じいちゃんの銃」とよんでいる。（本当はひいじいちゃん）
コワイけど…


H・A－M.3685
何でも射てる夢のS.M.G
METAL SLUG 2
エリ、フィオの銃
ヘキサゴン アームズ
M3685
専用工具でフロントサイト調整
UP
DW
グリップ内は専用工具入れになっている。

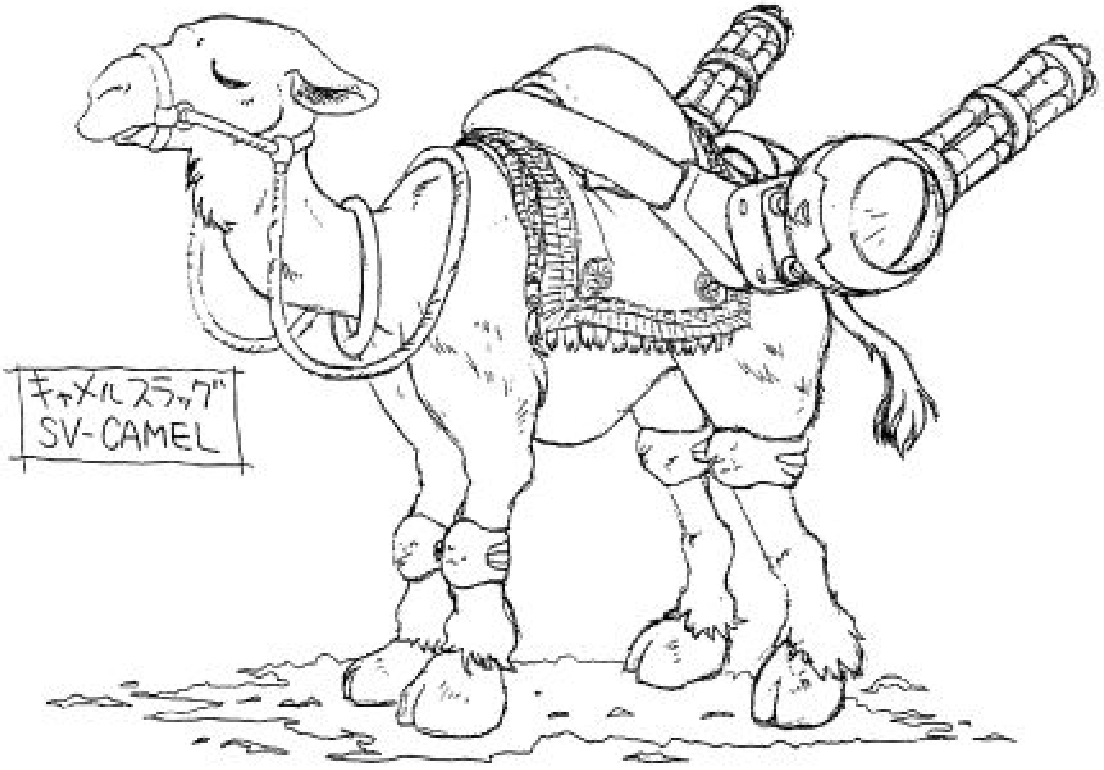
The mummies in *Metal Slug 2* spit various projectiles, such as poisonous gas and bombs. Should you inhale their gas, you transform into a mummy yourself, temporarily slowing your movement and restricting your firepower.



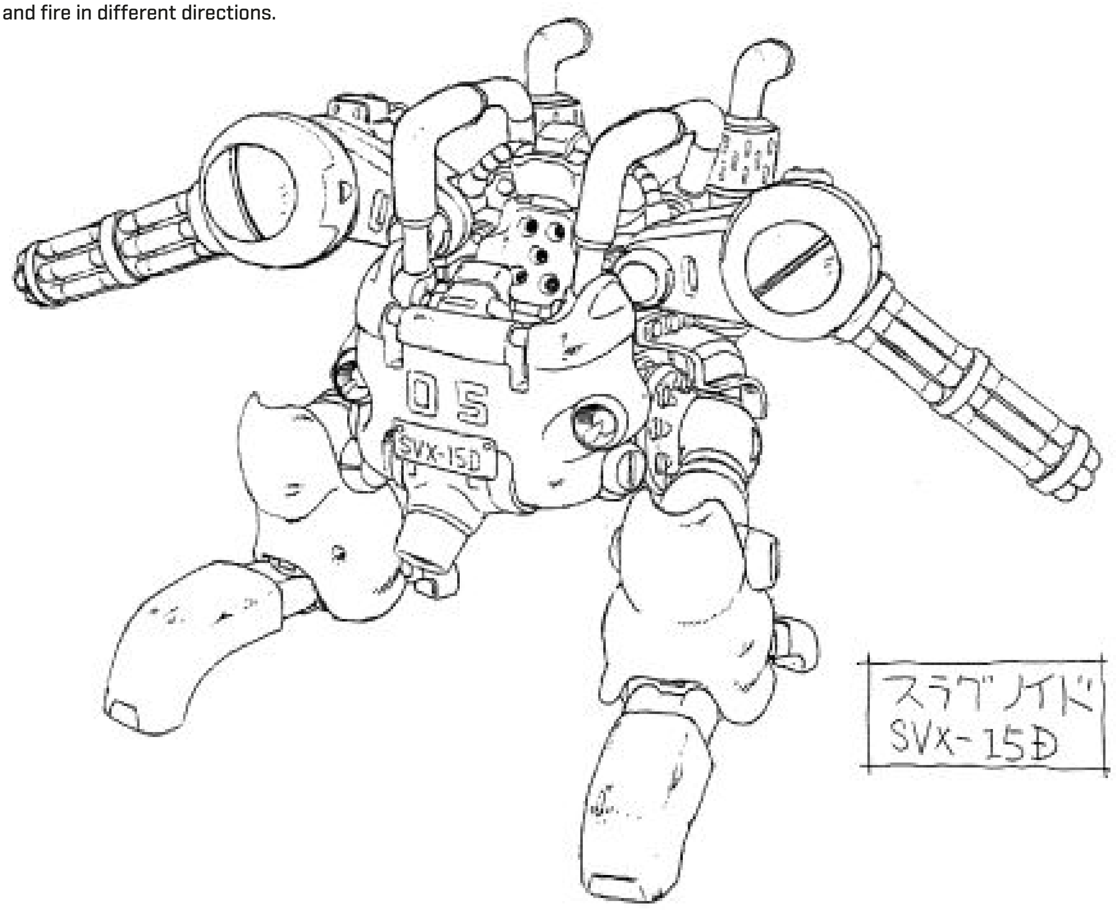



マミーゲート
MUMMY
地下の霊安室とつながってどんどんマミーを生み出す、神秘のゲートだ。

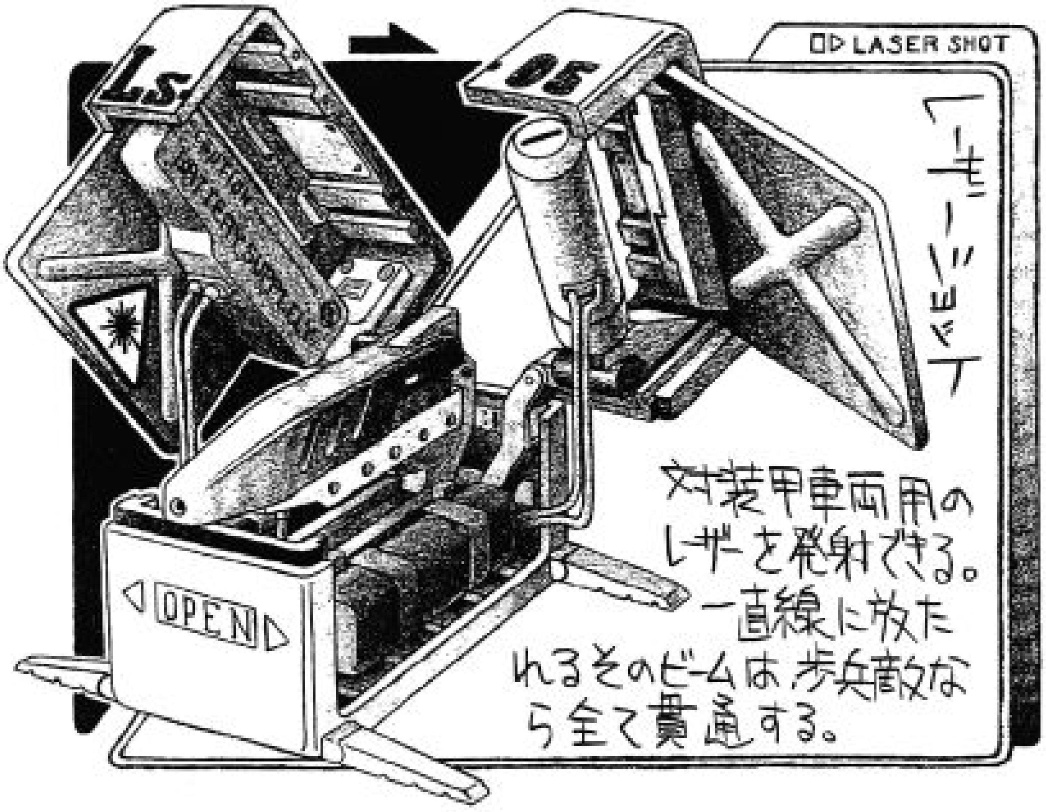
The SV-Camel was introduced in *Metal Slug 2*. It offers a low level of protection and only features twin Vulcans with no secondary weapon, but it moves fast and fits nicely into the Egyptian theme.

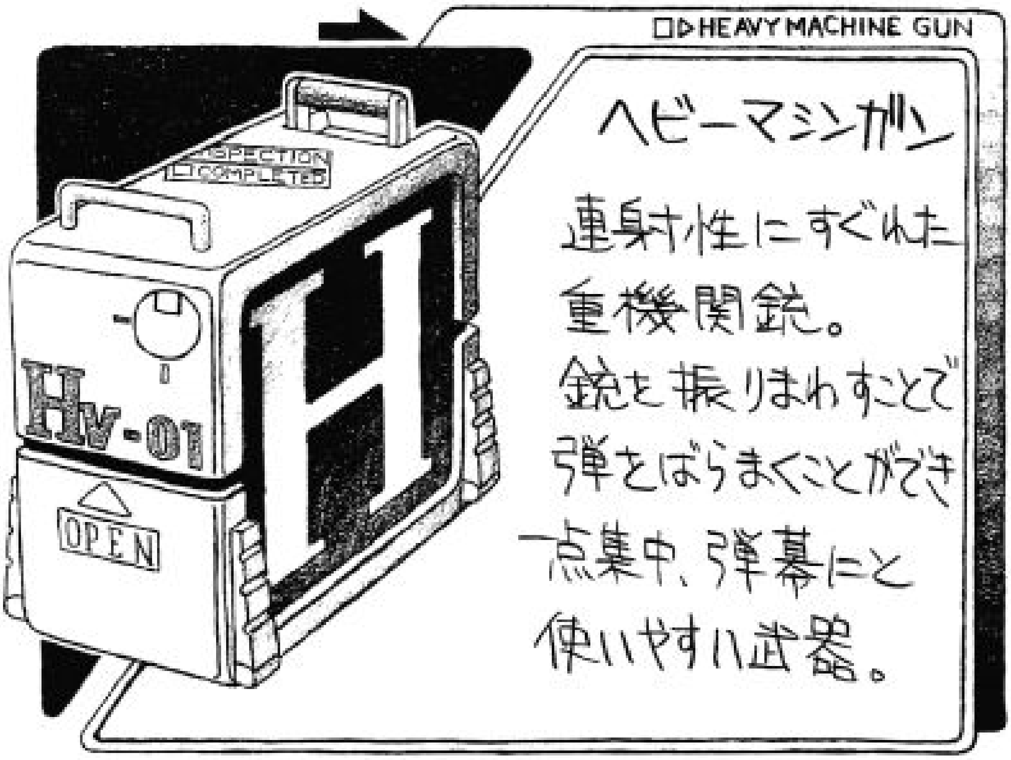


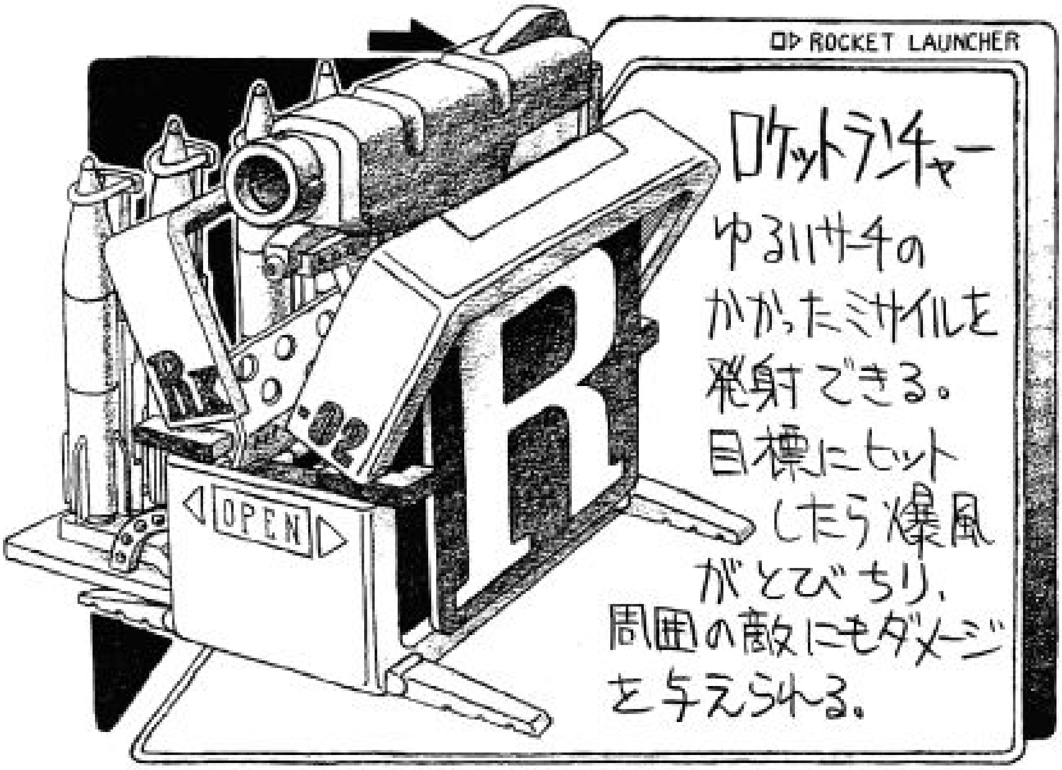
The SVX-15D Slugnoid is reminiscent of the Power Loader from 1986 film, *Aliens*. Although tricky to control, its rocket boosters mean it can jump high and the twin Vulcans can both rotate 360° and fire in different directions.



A selection of weapon designs for *Metal Slug 2*, most notable of which is the Laser Shot, a new introduction capable of piercing tank armour with its thin yet powerful stream.

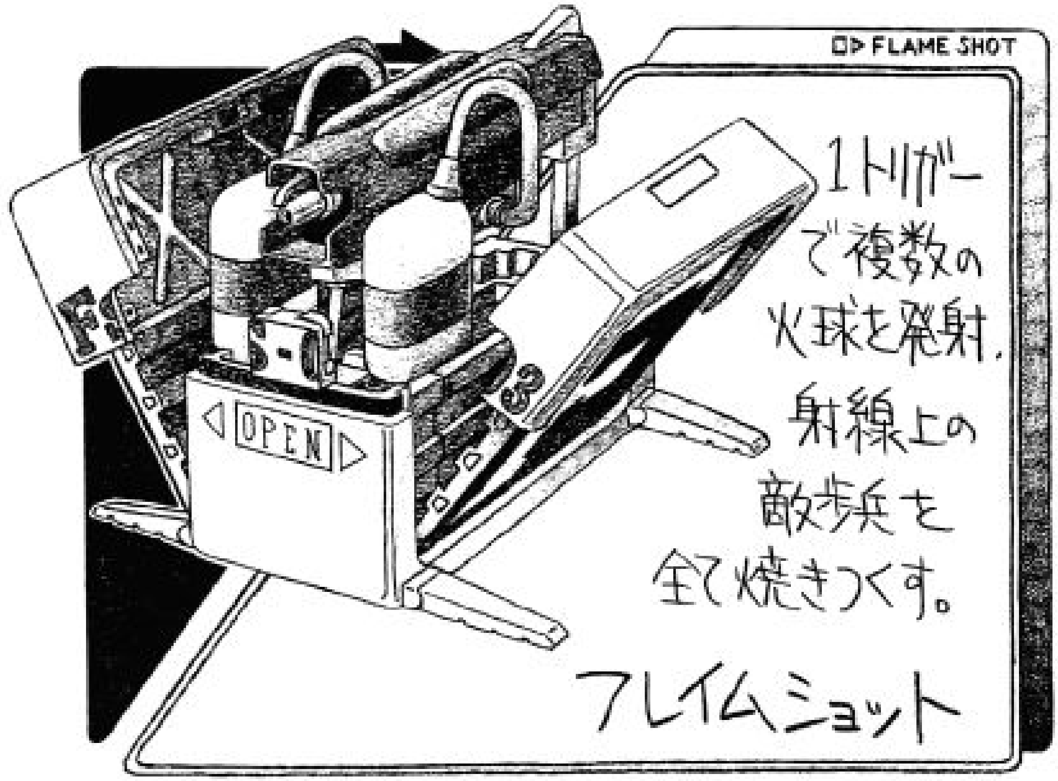

□▷ LASER SHOT
レーザーショット
対装甲車両用のレーザーを発射できる。一直線に放たれるそのビームは歩兵敵なら全て貫通する。
LS
05
OPEN


□▷ HEAVY MACHINE GUN
ヘビーマシンガン
連射性にすぐれた重機関銃。銃を振りまわすことで弾をばらまくことができ一点集中、弾幕にと使いやすい武器。
INSPECTION COMPLETED
Hv-01
H
OPEN


ROCKET LAUNCHER
R
RK
-02
OPEN

ロケットランチャー

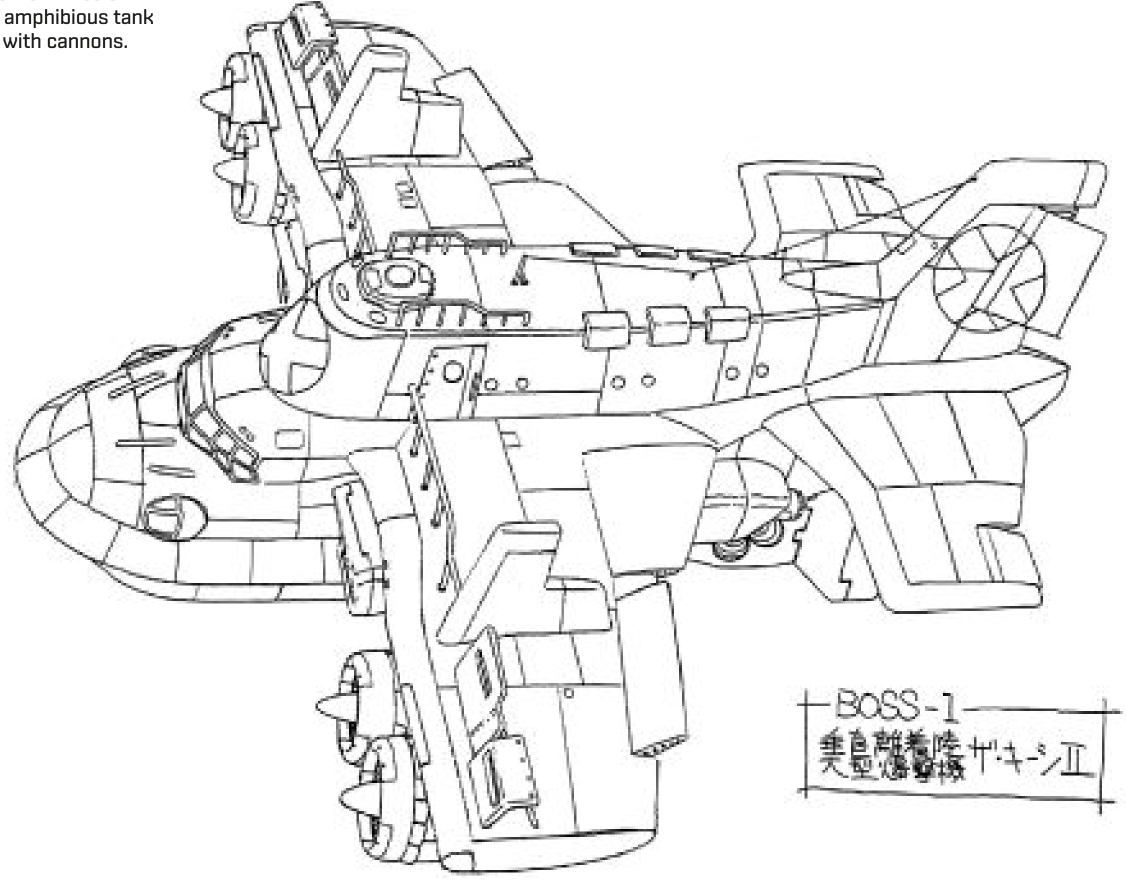
ゆるいサーチのかかったミサイルを発射できる。目標にヒットしたら爆風がとびちり、周囲の敵にもダメージを与えられる。


FLAME SHOT
F
03
OPEN

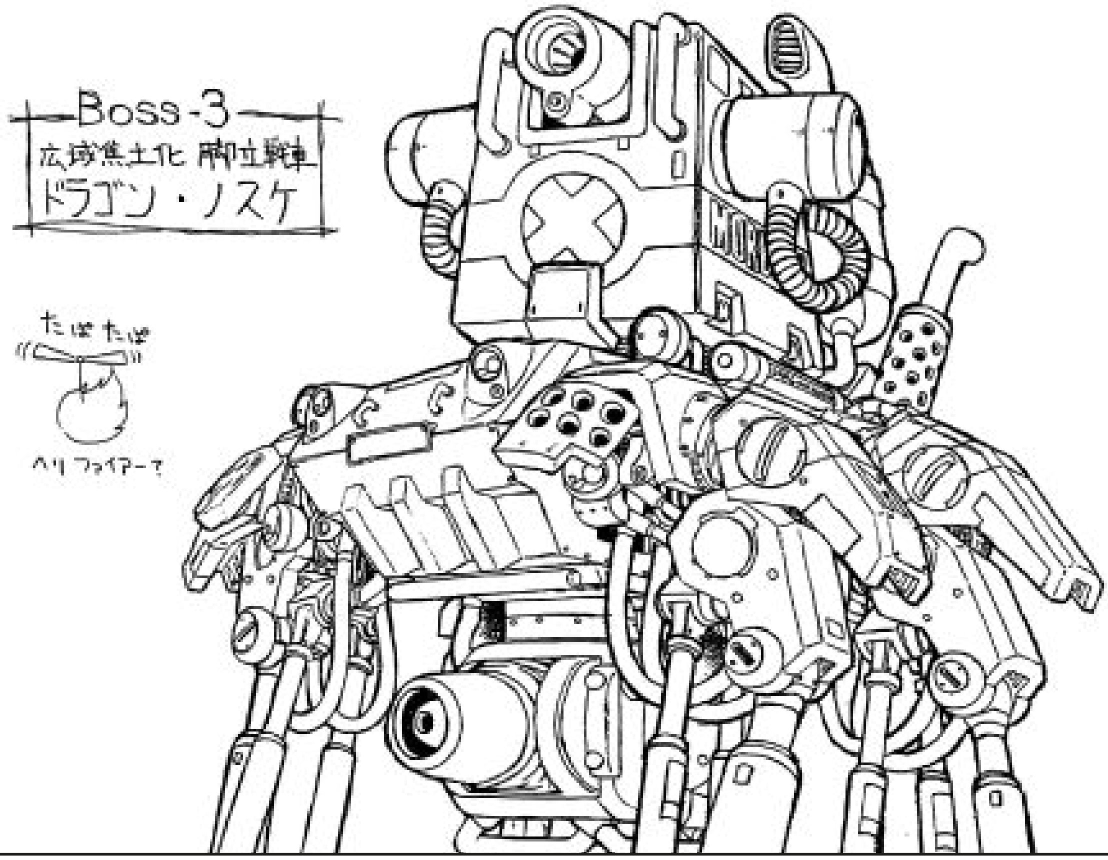
1トリガーで複数の火球を発射。射線上の敵歩兵を全て焼きつくす。

フレイムショット

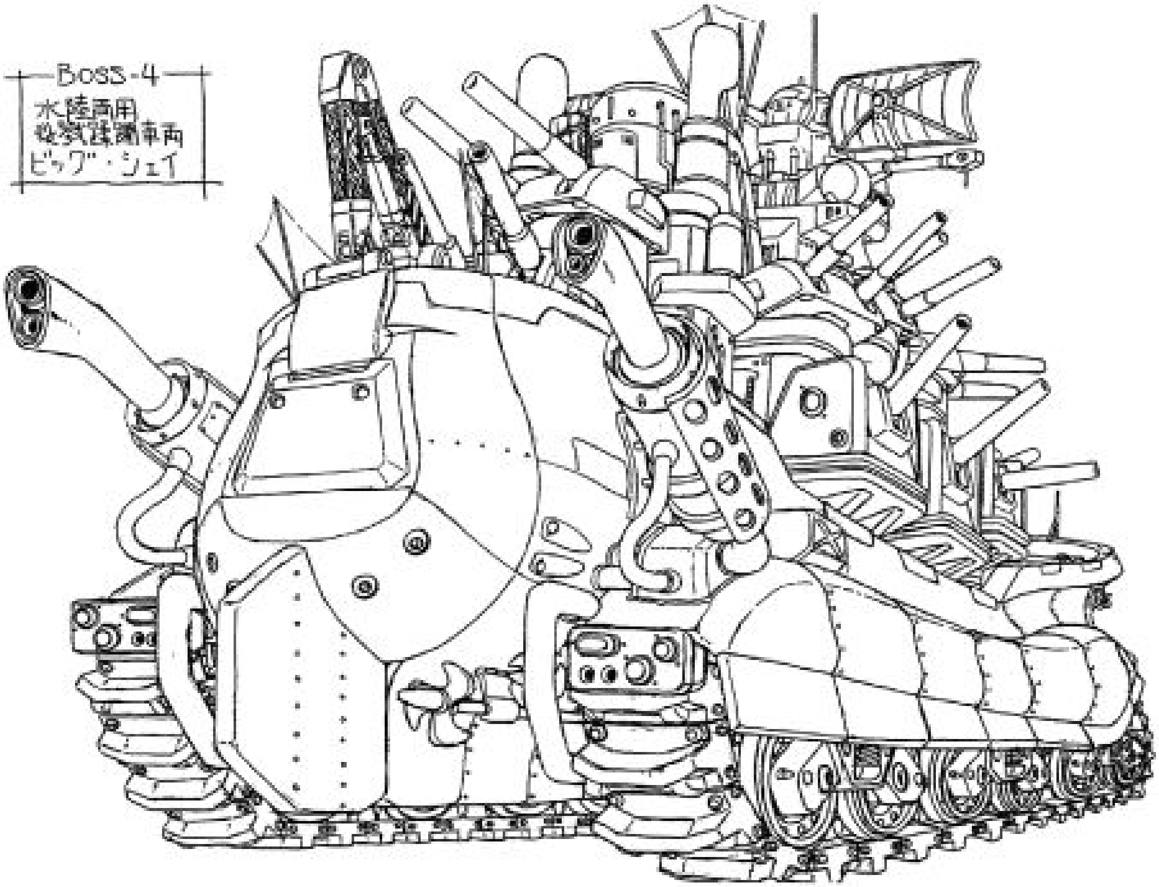
A selection of bosses from *Metal Slug 2*, including the Big Shiee from Mission 4 – a huge amphibious tank bristling with cannons.


BOSS-1
垂直離着陸
大型爆撃機 ザ・キーシII

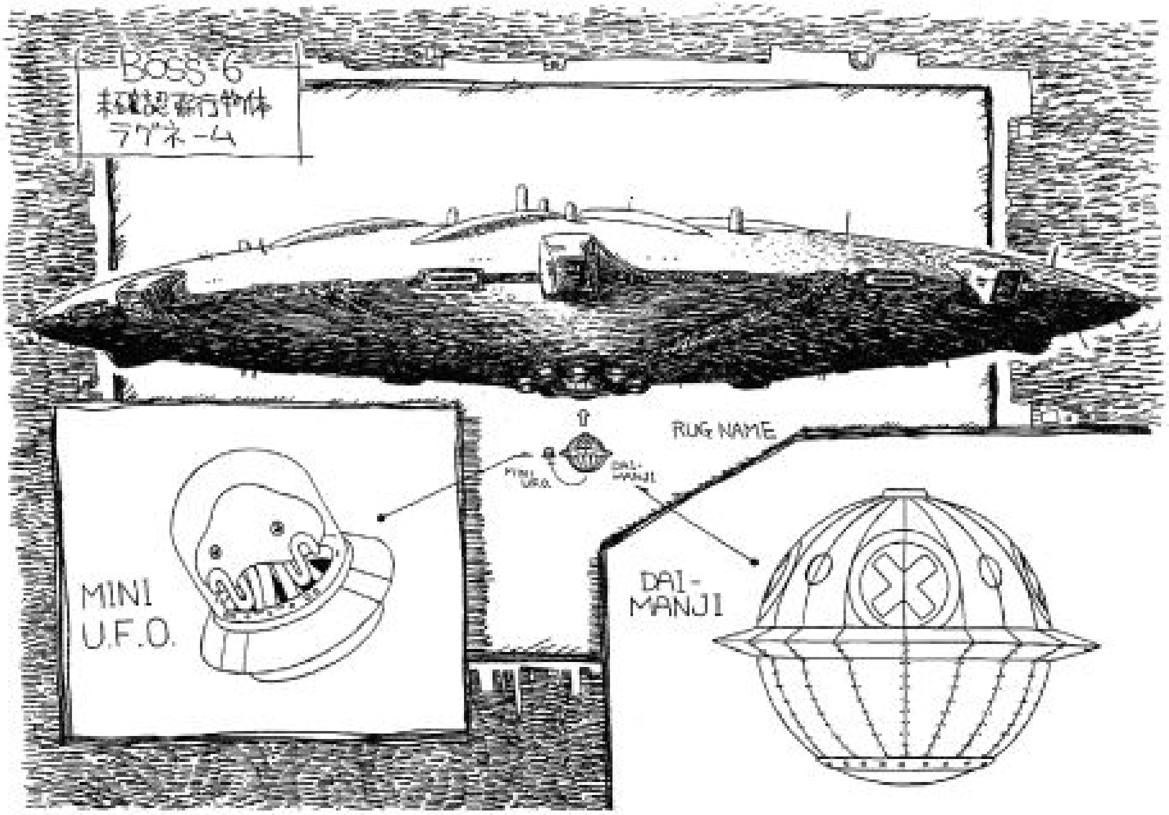
Keesi II (Mission 1 boss)


Boss-3
広域焦土化 脚立戦車
ドラゴン・ノスケ
たぱたぱ
ヘリファイアーで

Dragon Nosuke (Mission 3 boss)

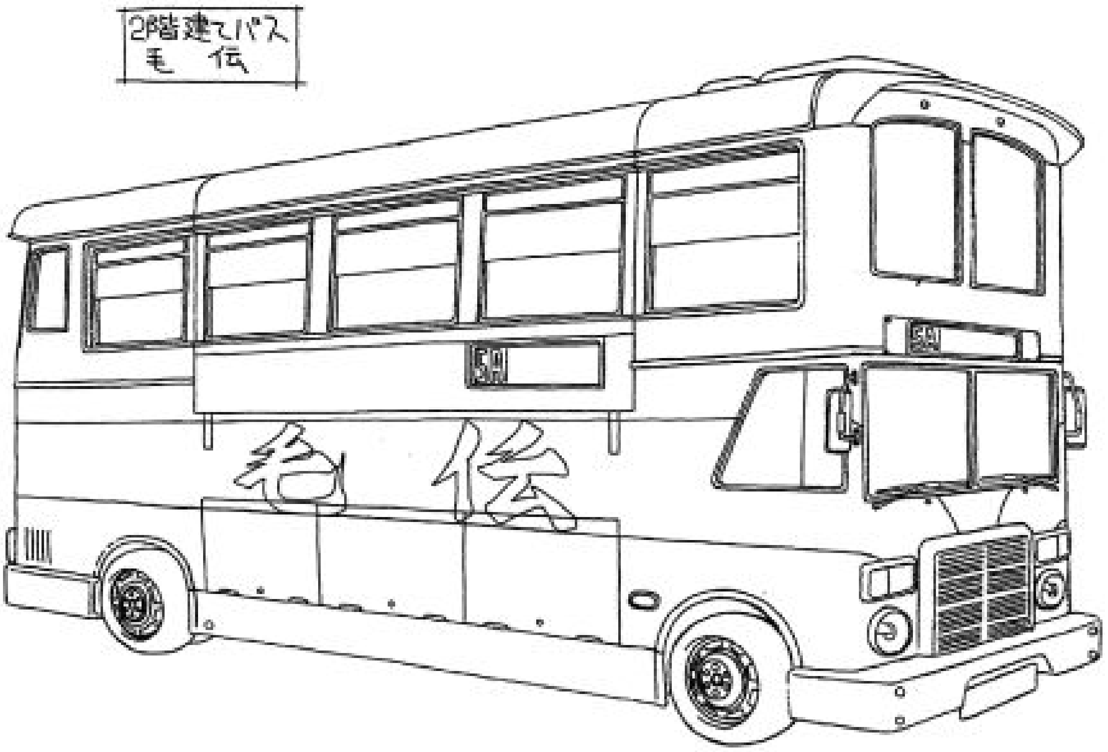

BOSS-4
水陸両用
殺戮戦闘車両
ビッグ・シェイ

Big Shiee (Mission 4 boss)

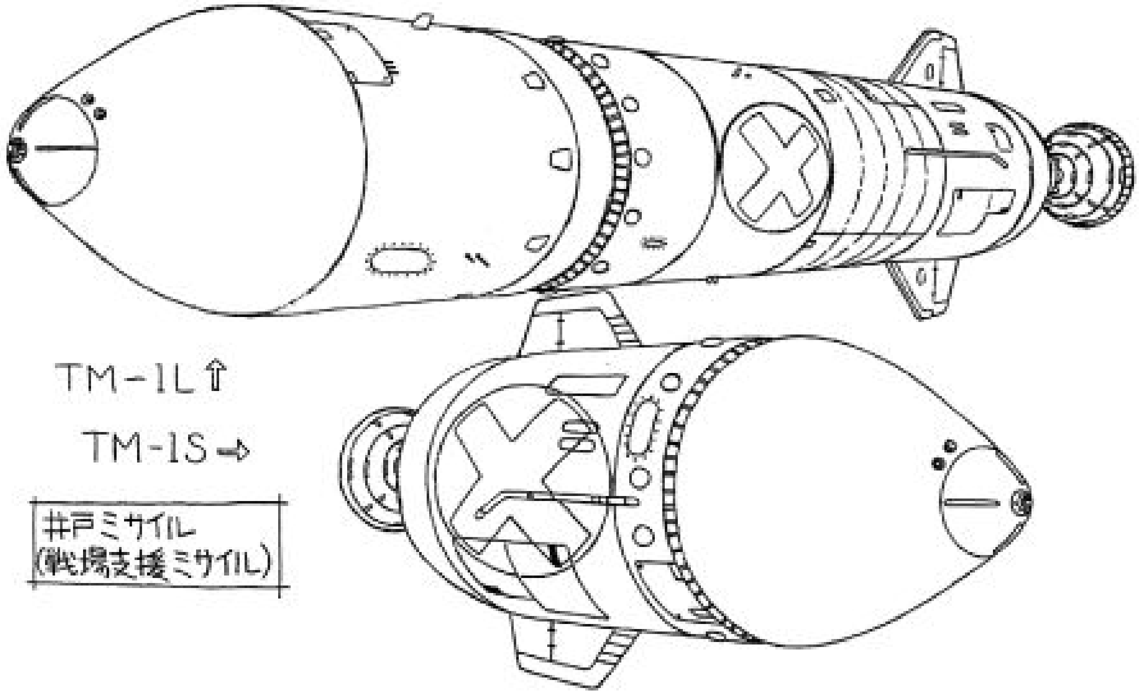

BOSS-6
未確認飛行物体
ラグネーム
RUG NAME
MINI U.F.O.
DAI-MANJI
MINI U.F.O.
DAI-MANJI

Rugname (Final Mission boss)

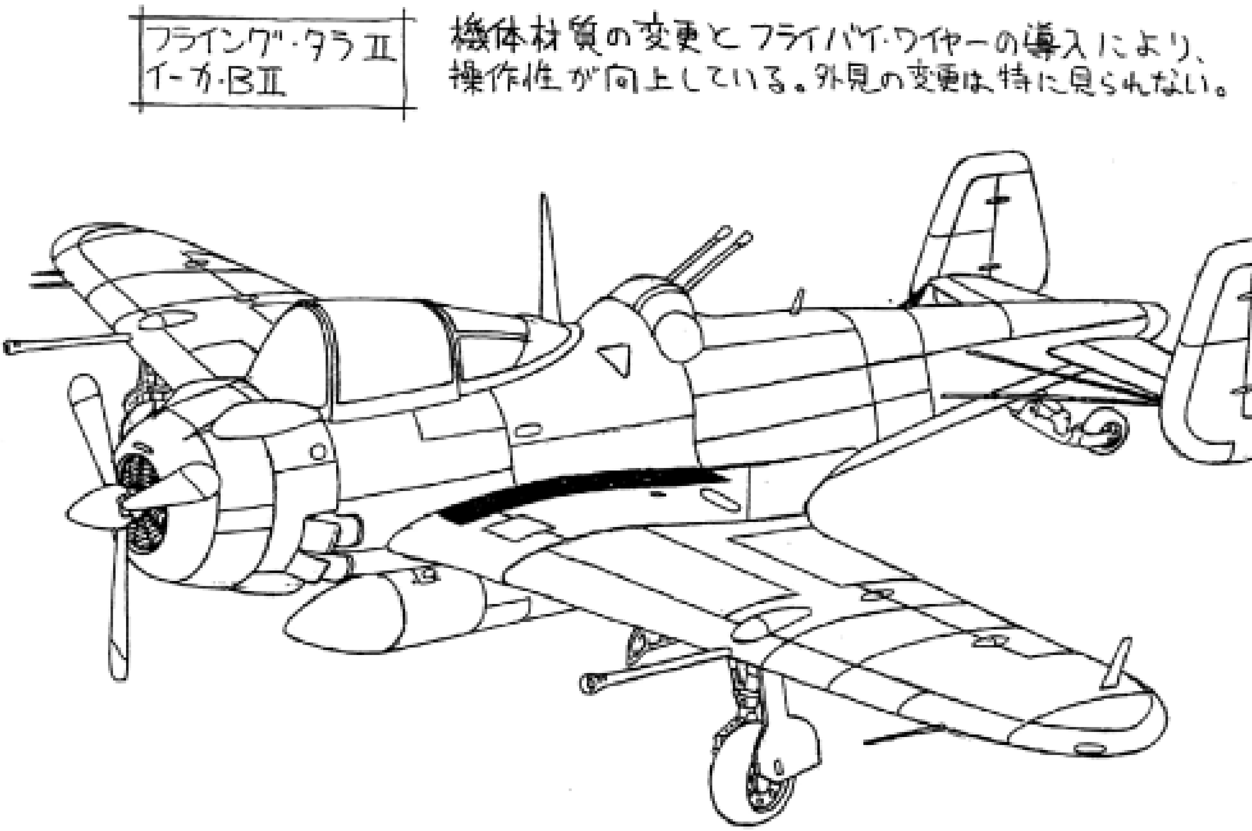
Metal Slug 2 also features some iconic vehicles, including the Eaca-B, which is based on WWII planes such as the Grumman TBF Avenger, Grumman F6F Hellcat and Boeing B-17 Flying Fortress.


2階建てバス
毛 伝
5H
5H
毛 伝

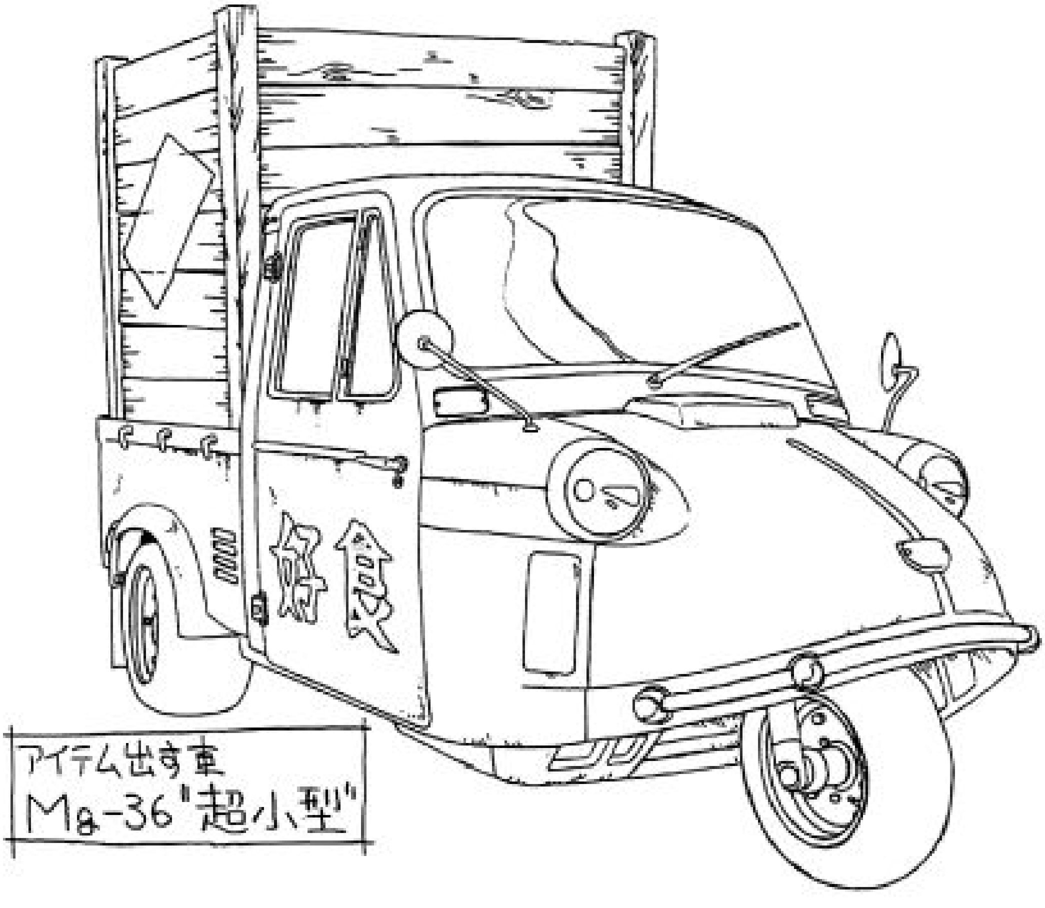
Double-Decker bus


TM-1L⇧
TM-1S⇨
井戸ミサイル
(戦場支援ミサイル)

TM-1L and TM-1S Rebel Rockets

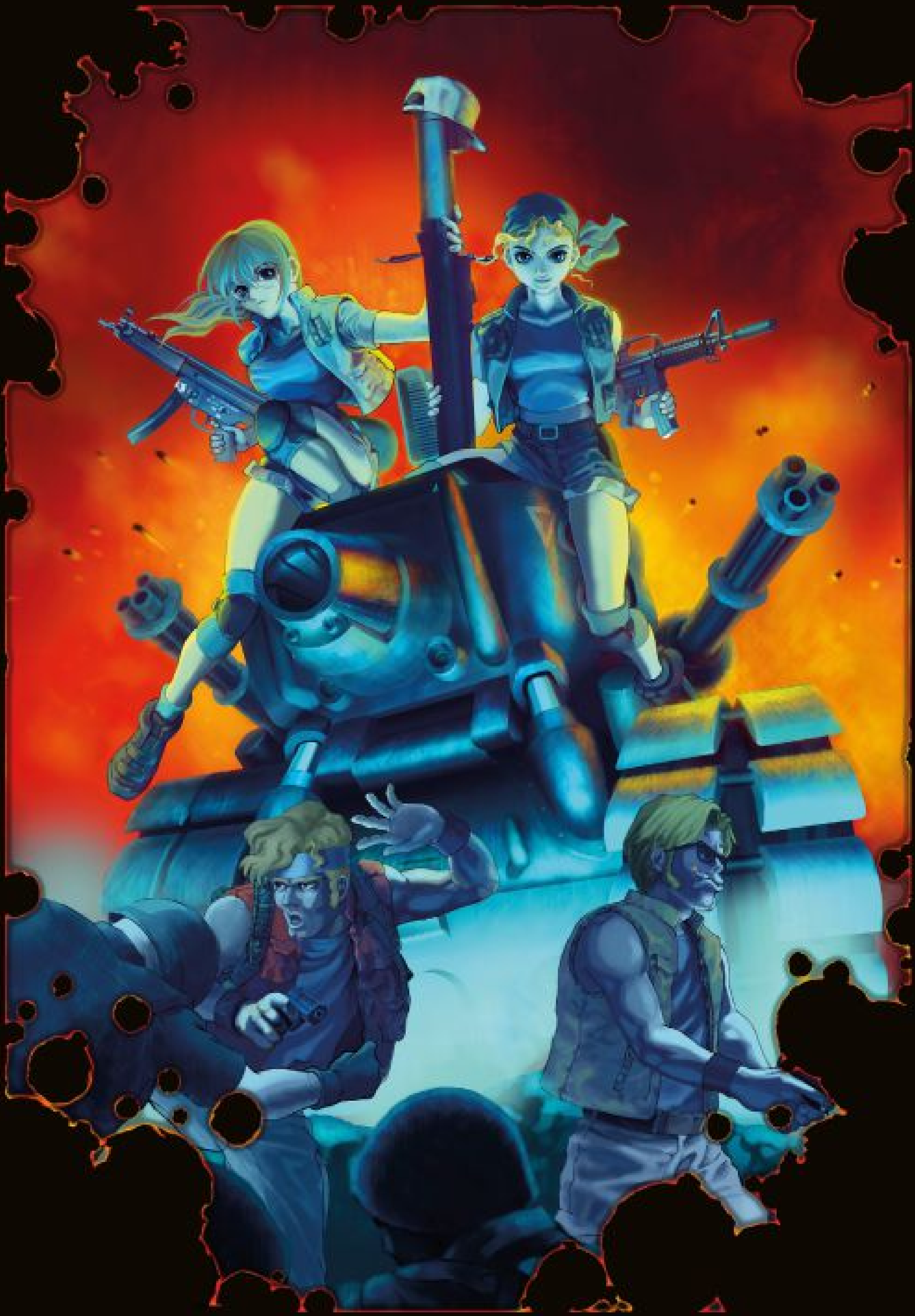

フライング・タラII
イーカ・BII
機体材質の変更とフライバイ・ワイヤーの導入により、
操作性が向上している。外見の変更は特に見られない。

Eaca-B plane

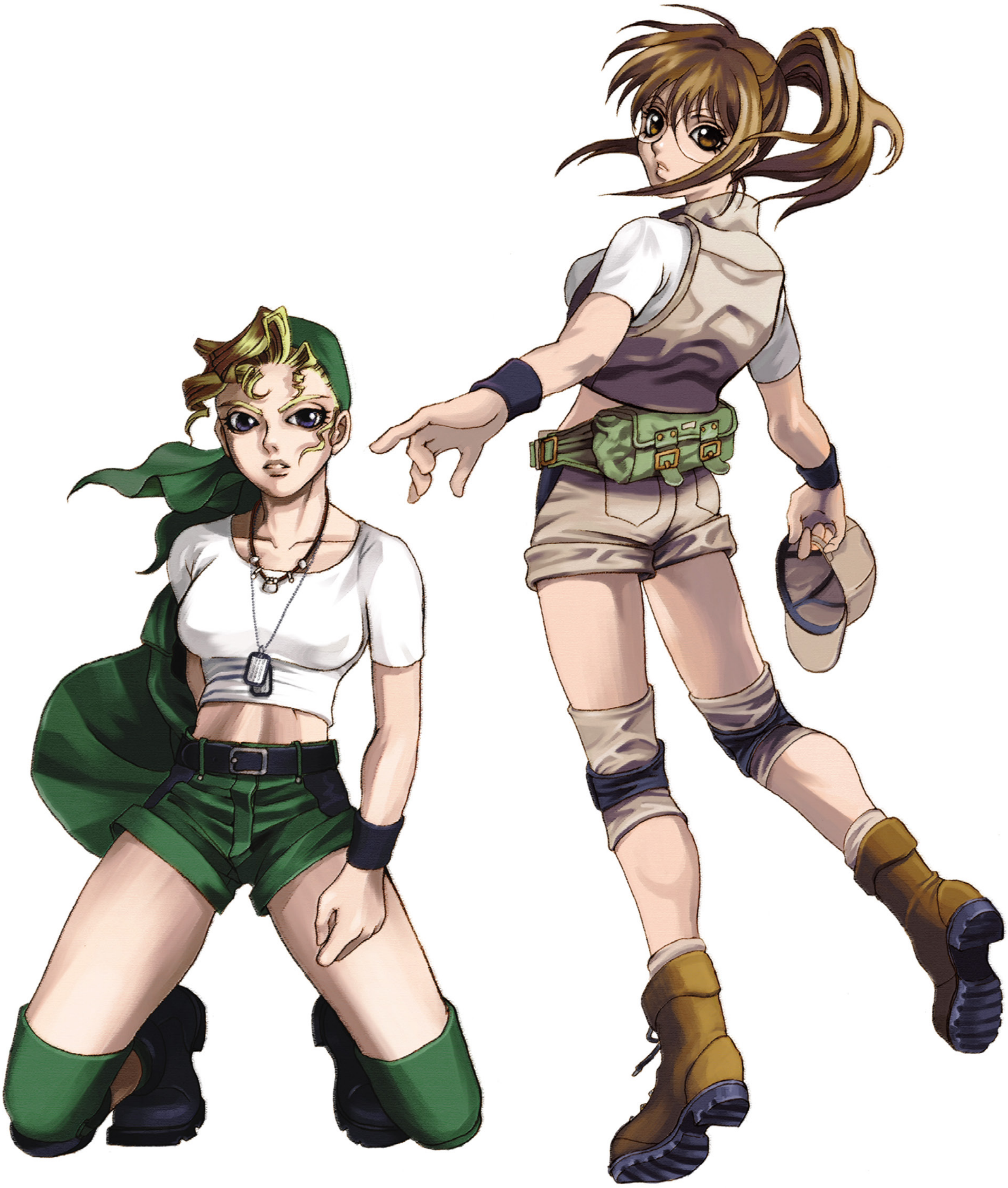

好食
アイテム出す車
Mg-36"超小型"

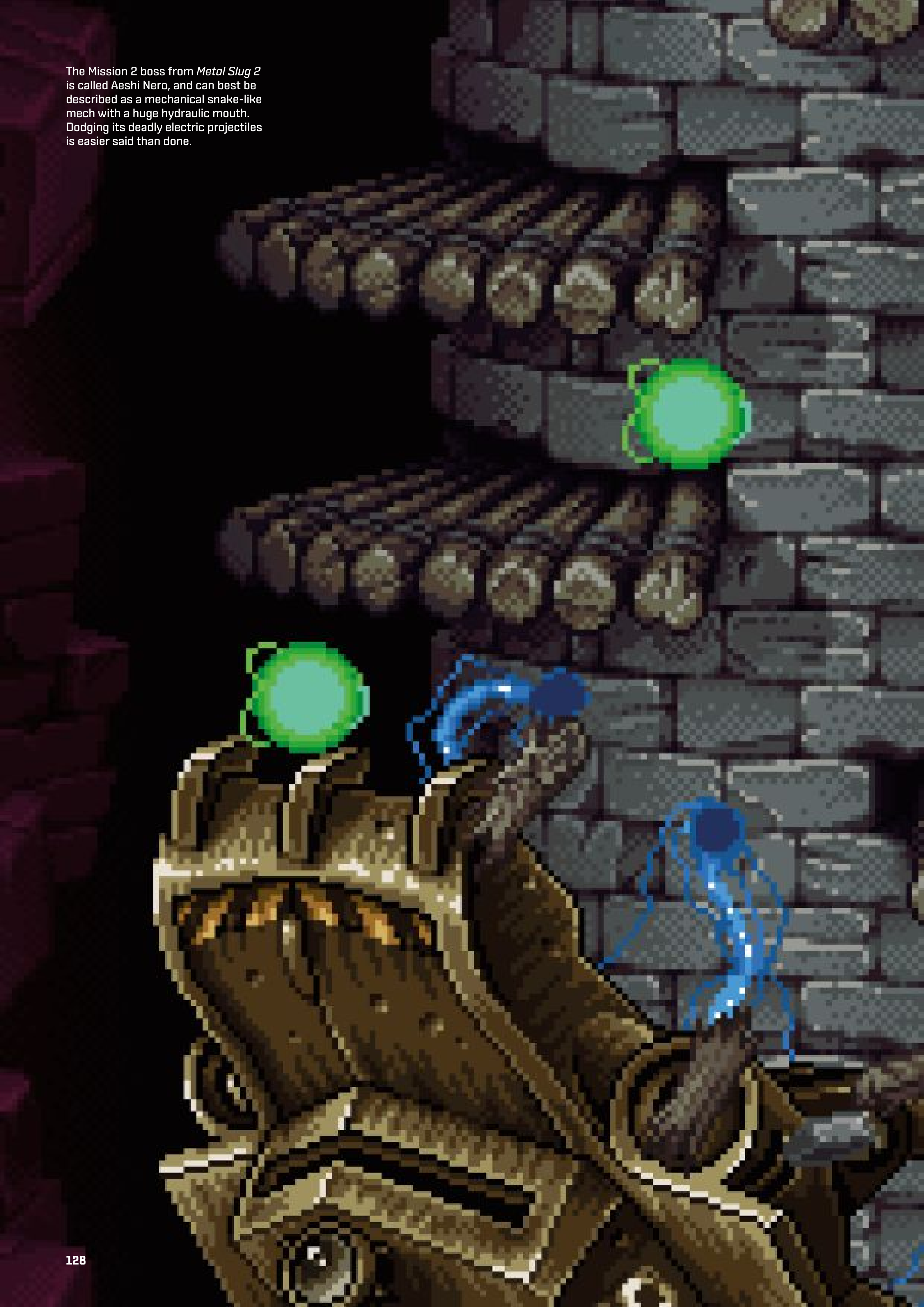
MG-36 truck

The iconic box art for *Metal Slug 2* features Marco and Tarma riding into battle with new recruits Eri and Fio on the legendary SV-001 Metal Slug.



Metal Slug 2 introduced two new playable characters – Eri Kasamoto (left) and Fio Germi (right) – illustrated here in the game's promotional artwork.



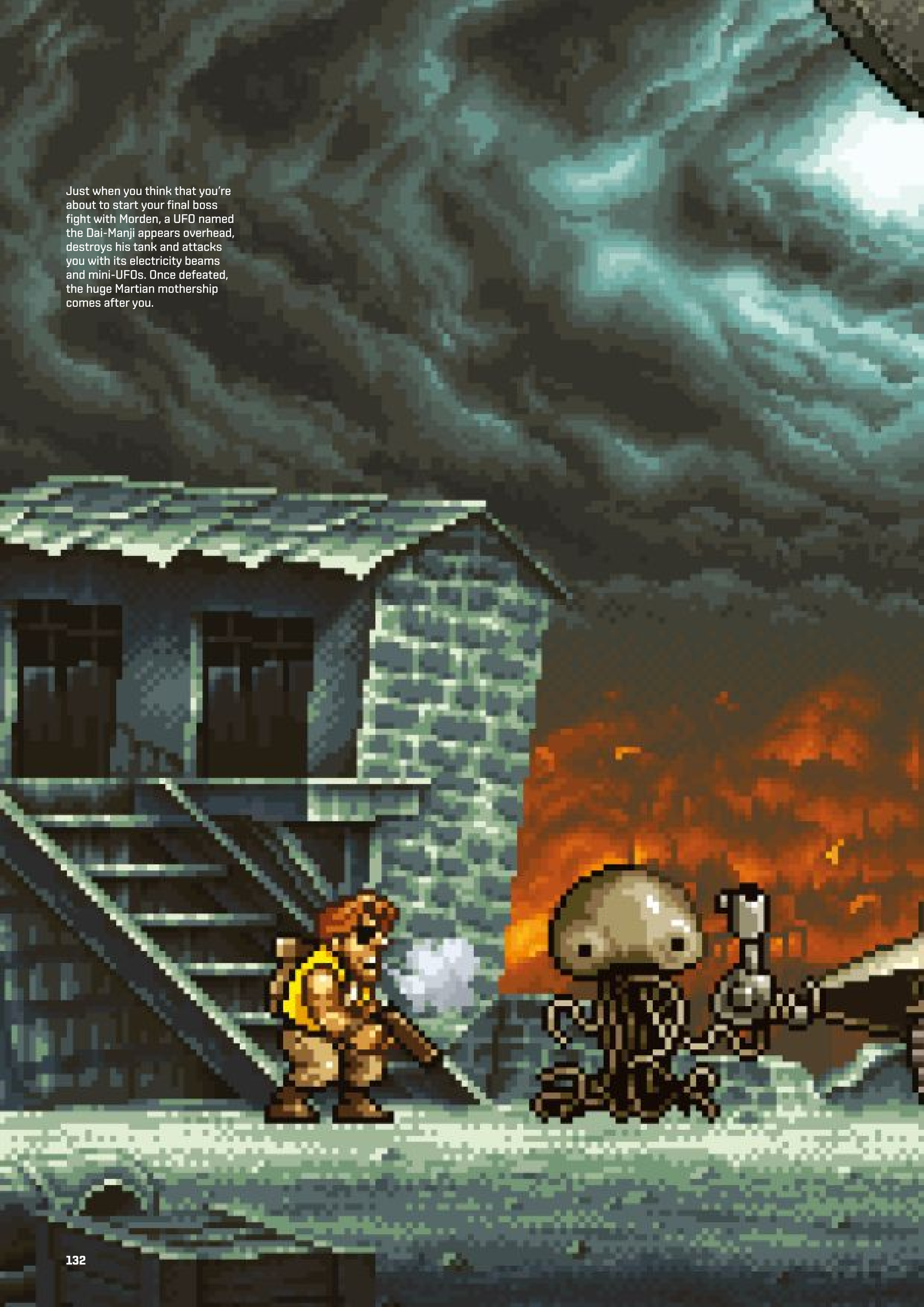


The Mission 2 boss from *Metal Slug 2* is called Aeshi Nero, and can best be described as a mechanical snake-like mech with a huge hydraulic mouth. Dodging its deadly electric projectiles is easier said than done.

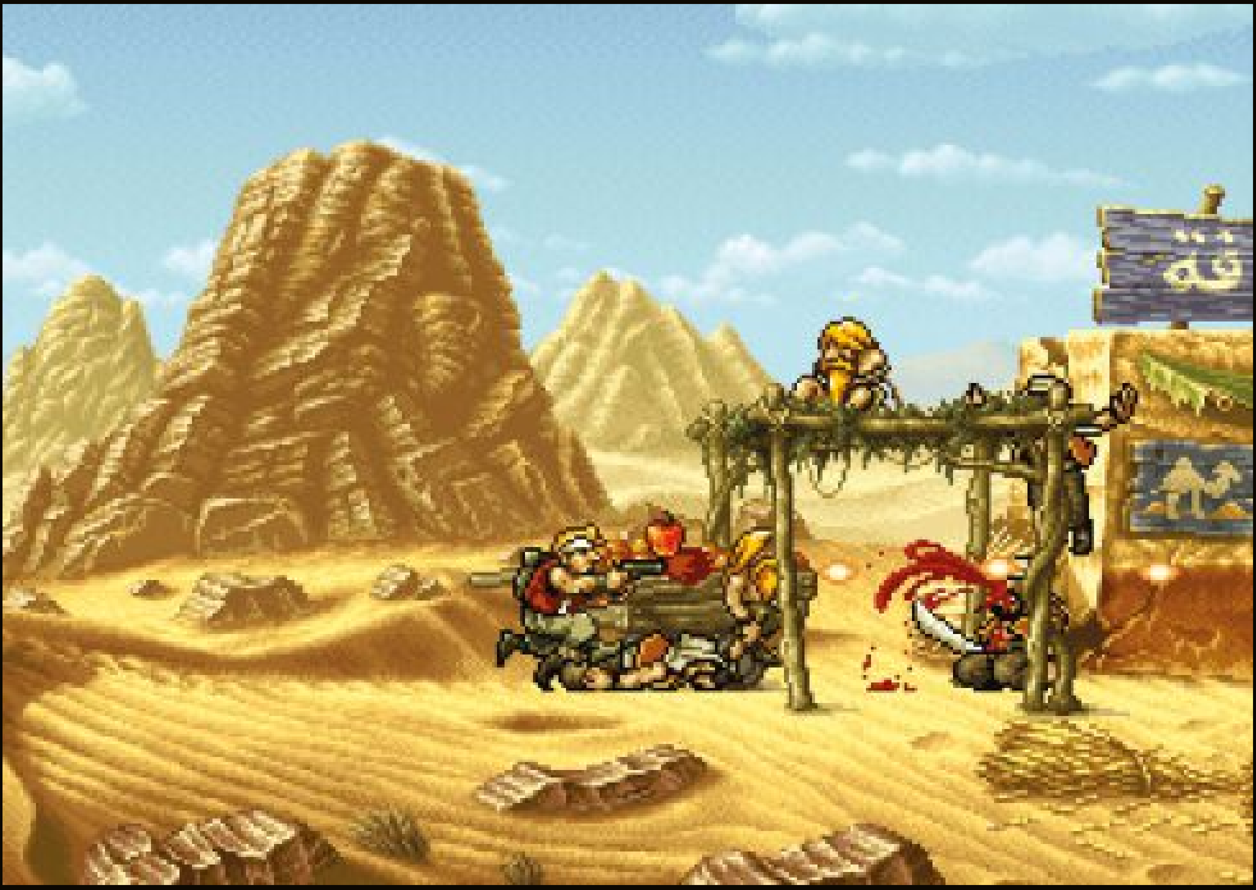
05

The Dragon Nosuke boss is all that stands between you completing Mission 3. As well as its Gatling gun and flamethrower, it has hydraulic legs, which means it can lower itself and crush anything foolish enough to be found beneath its huge body.

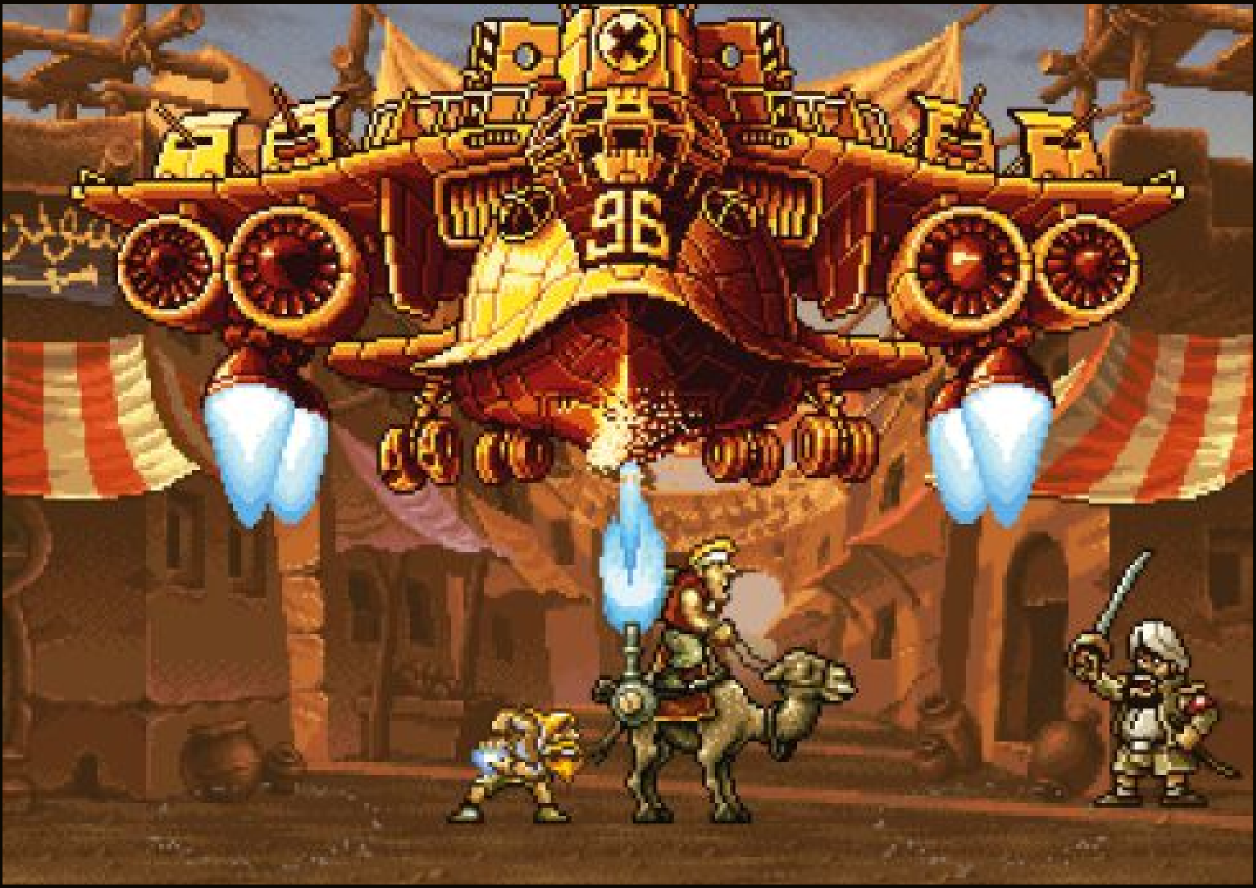
MORDEN



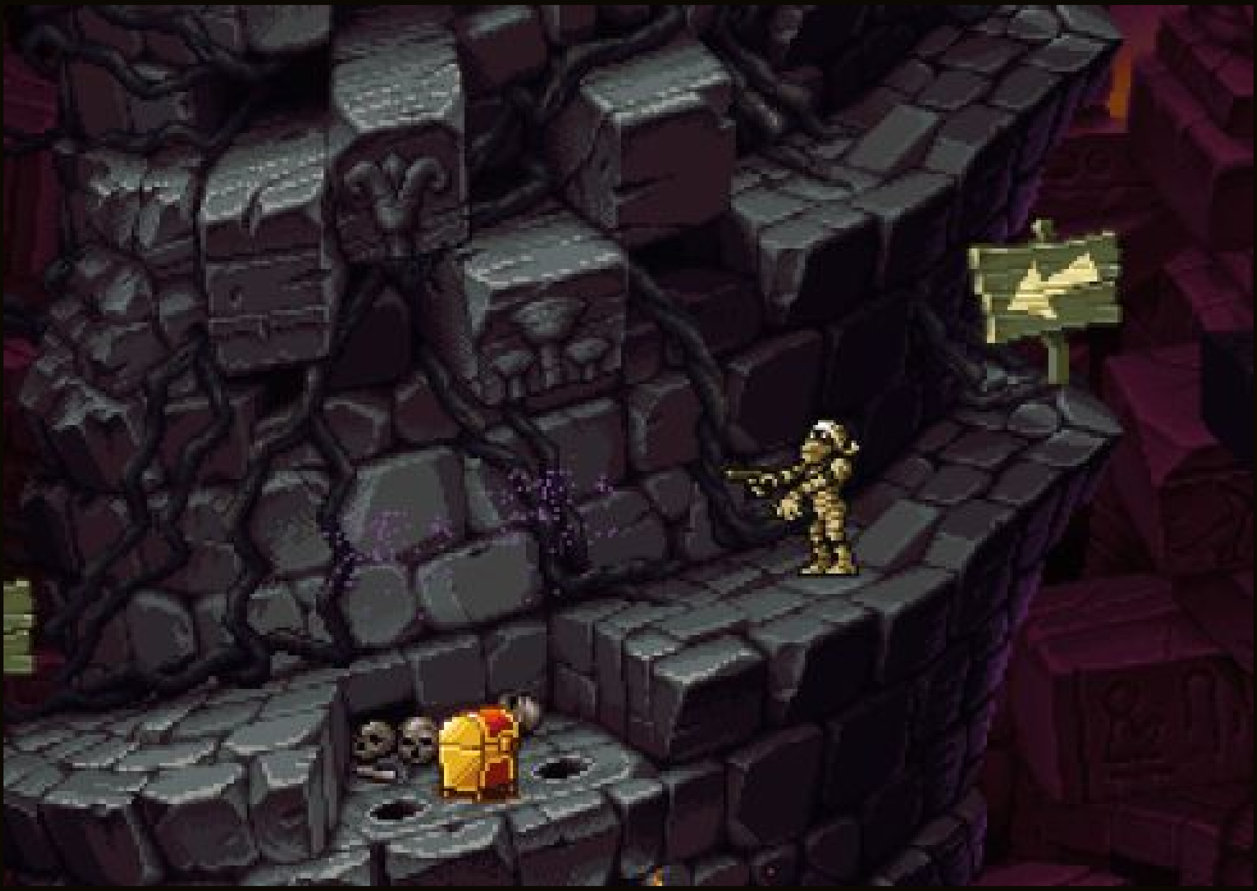
Just when you think that you're about to start your final boss fight with Morden, a UFO named the Dai-Manji appears overhead, destroys his tank and attacks you with its electricity beams and mini-UFOs. Once defeated, the huge Martian mothership comes after you.



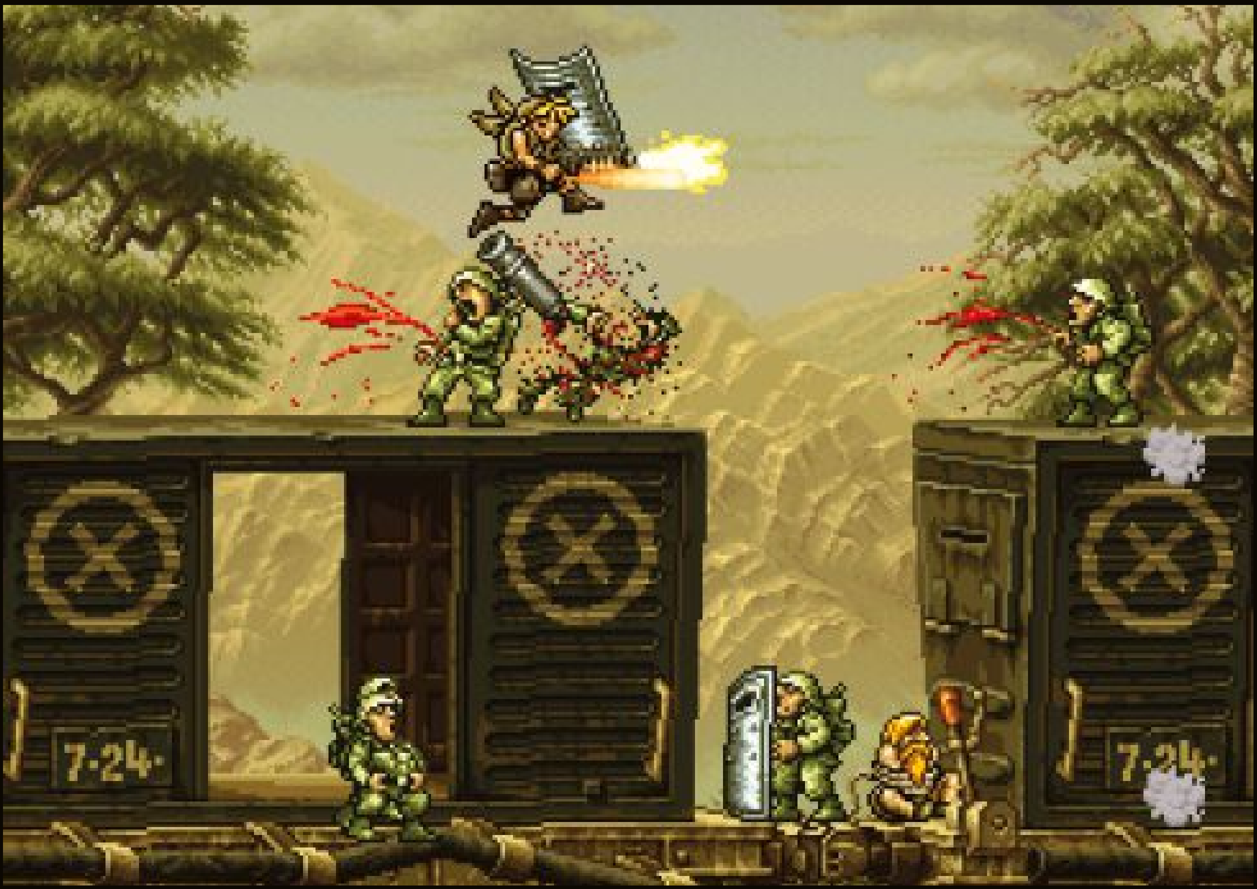
Mission 1 takes place in a typical Egyptian-style environment where you first come across the sword-wielding Arabian Infantry.



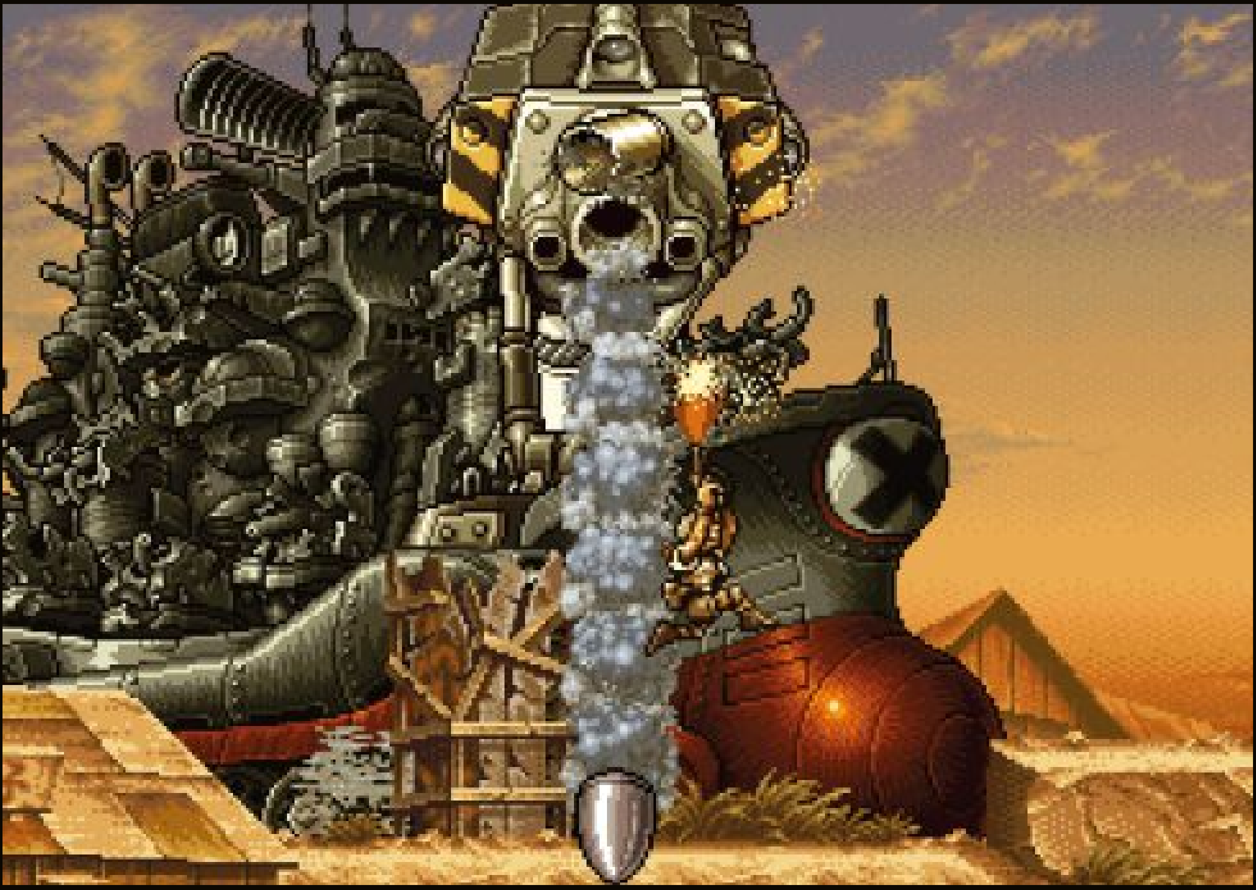
The all-new Camel Slug is a fitting ride for the Arabian-themed opening mission. Note that Hyakutaro Ichimonji is also helping out with his 'Hadoken' special move.



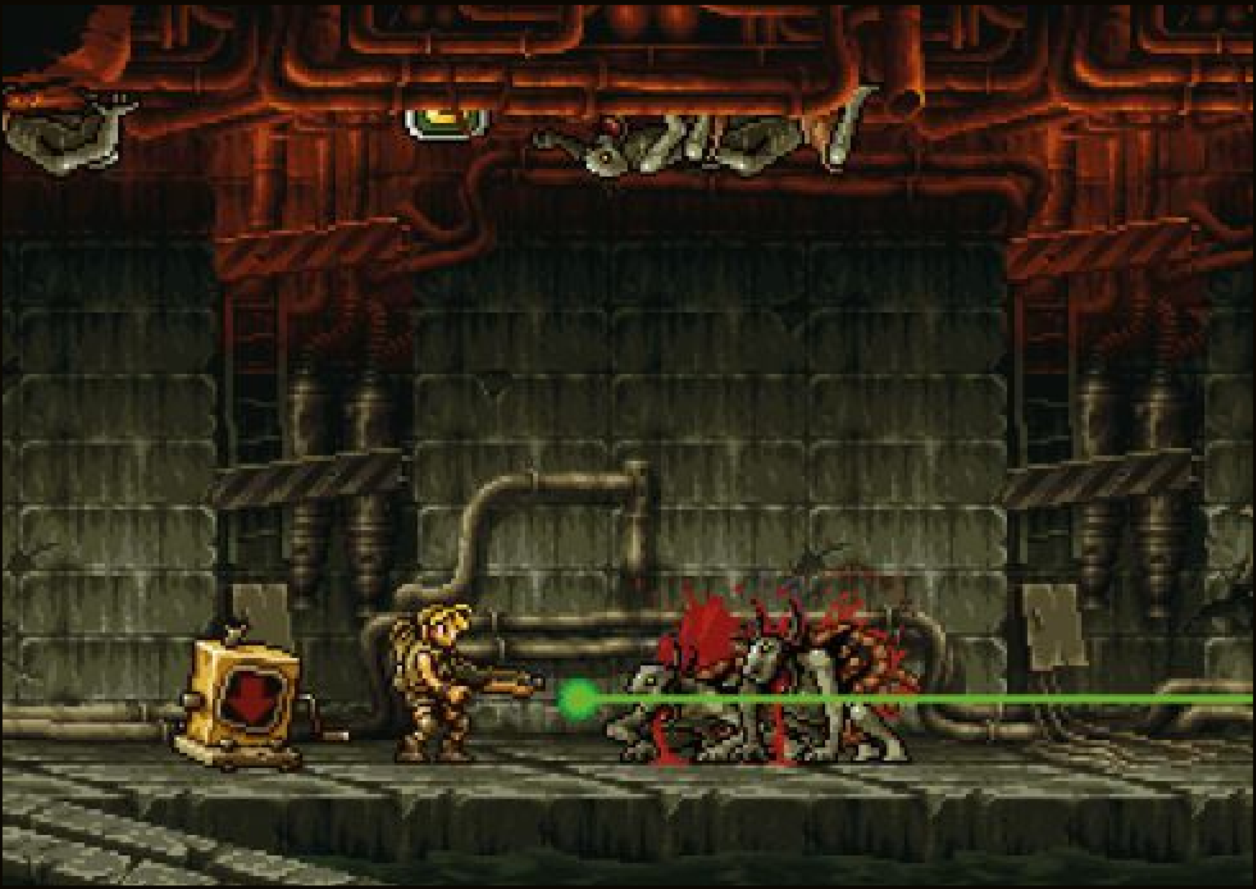
Coming into contact with a mummy's purple gas will turn you into one yourself, slowing you down until you find the magic vial which acts as a cure.



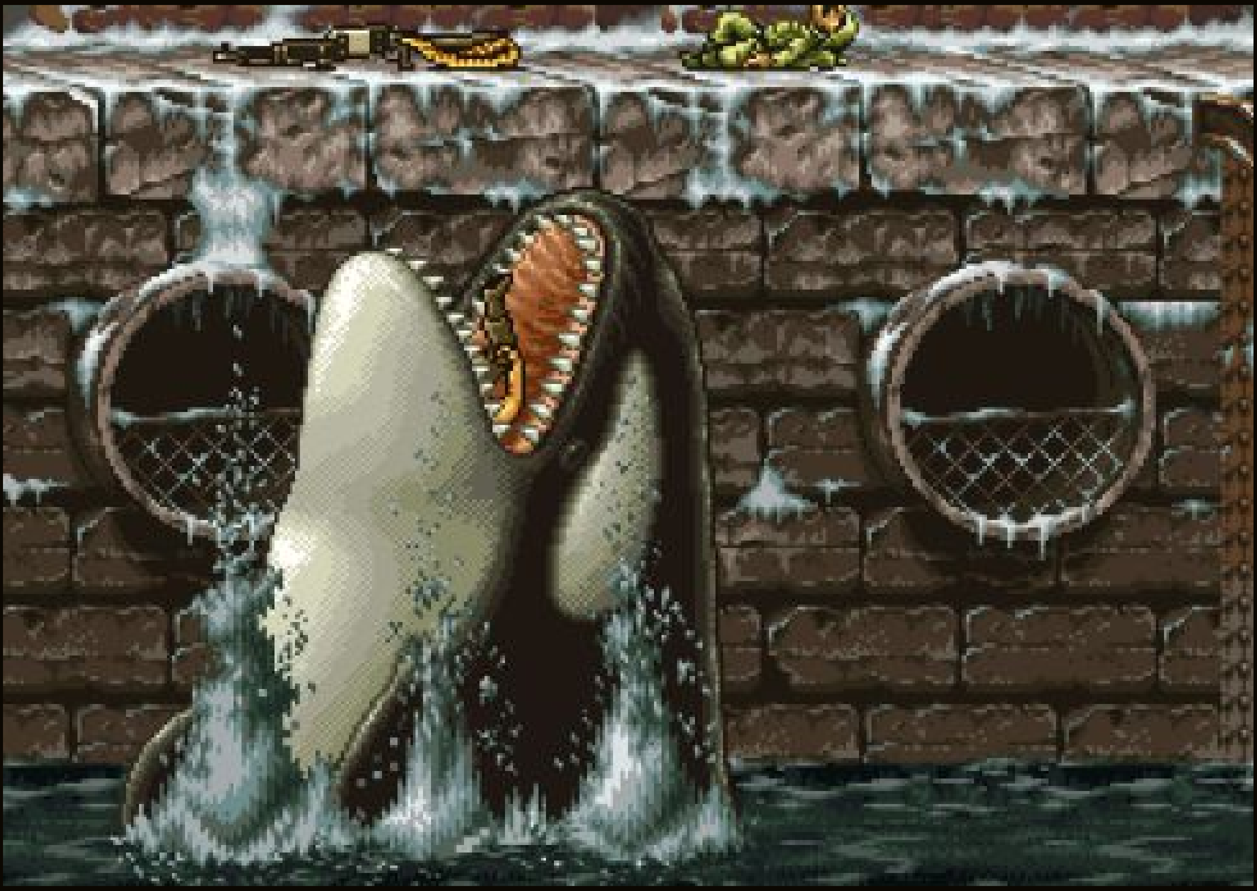
While riding one of Morden's trains, new recruit Eri shows she means business by blasting her way through some Rebel Soldiers.



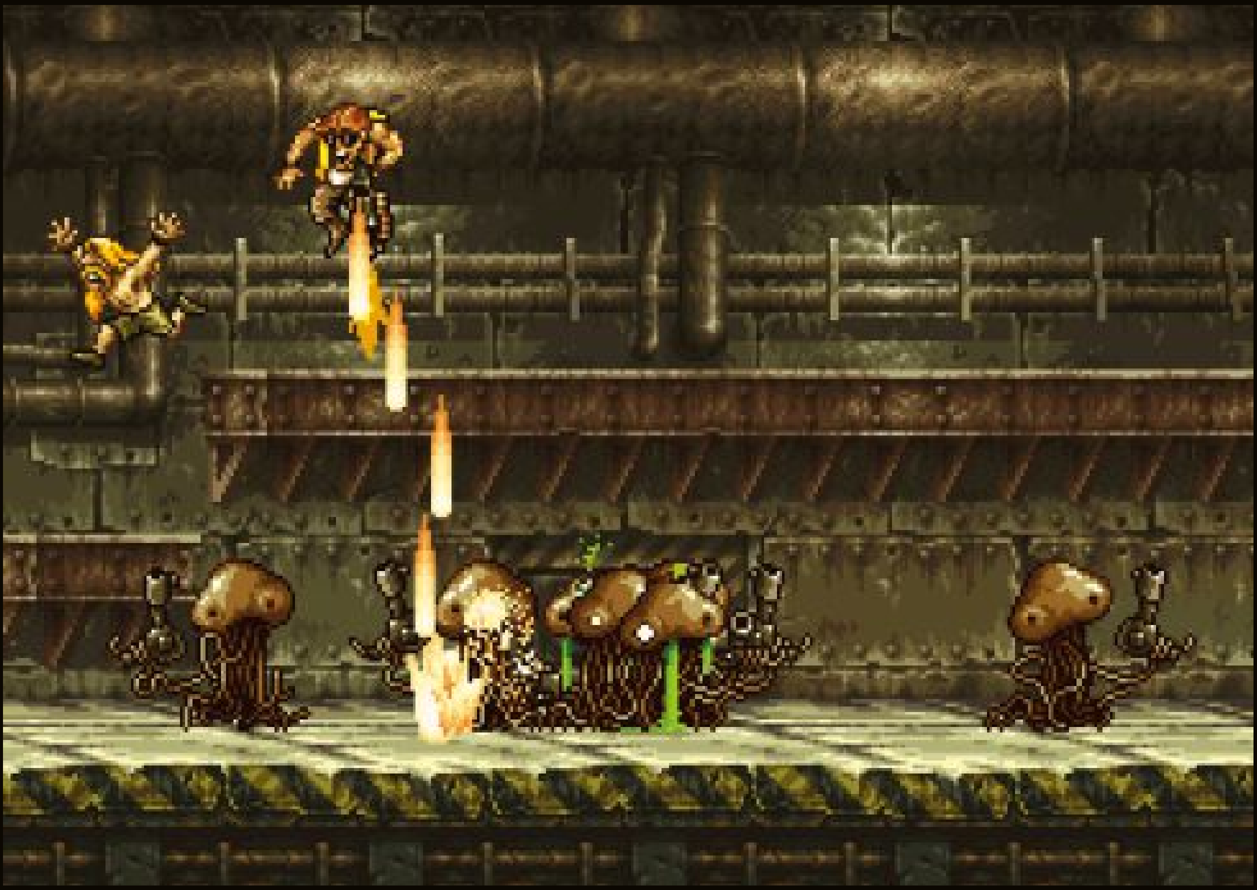
The end of Mission 4 features an encounter with the amphibious tank, Big Shiee. Not only does it boast multiple guns, but its powerful main cannon fires huge shells towards you.



New to *Metal Slug 2*, the Laser Shot projects a powerful horizontal steam. It cuts through most things to cause maximum damage, but ammo is limited.

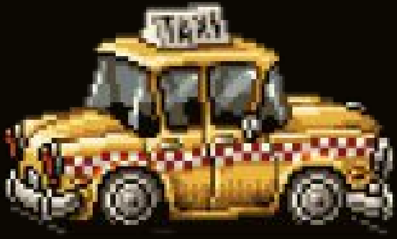


Once defeated, recurring villain Allen O'Neil falls off a cliff and is gobbled up by a huge Killer Whale. But is that really the end of him?

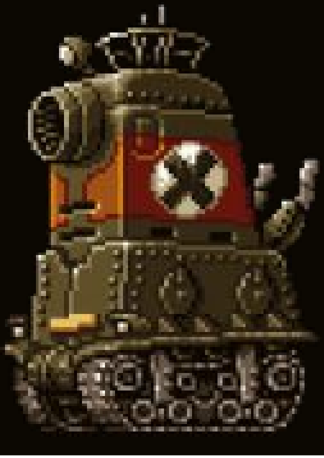


The Final Mission sees the introduction of the Mars People, ray gun-wielding alien invaders. From this point on, the Metal Slug series features many sci-fi references.

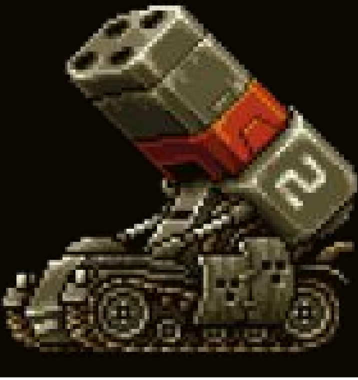
A selection of sprites from *Metal Slug 2,* including enemy tanks and various bosses.



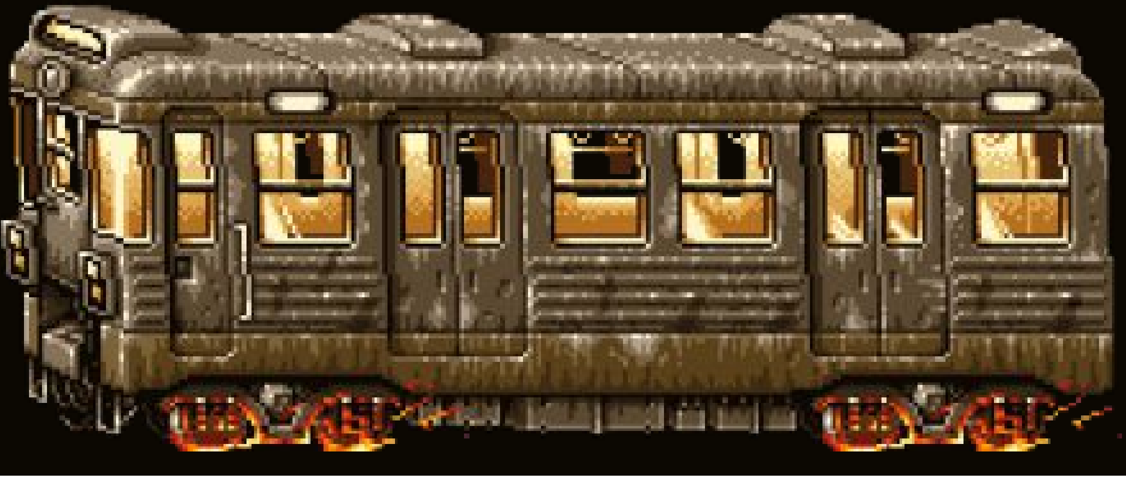
Taxi



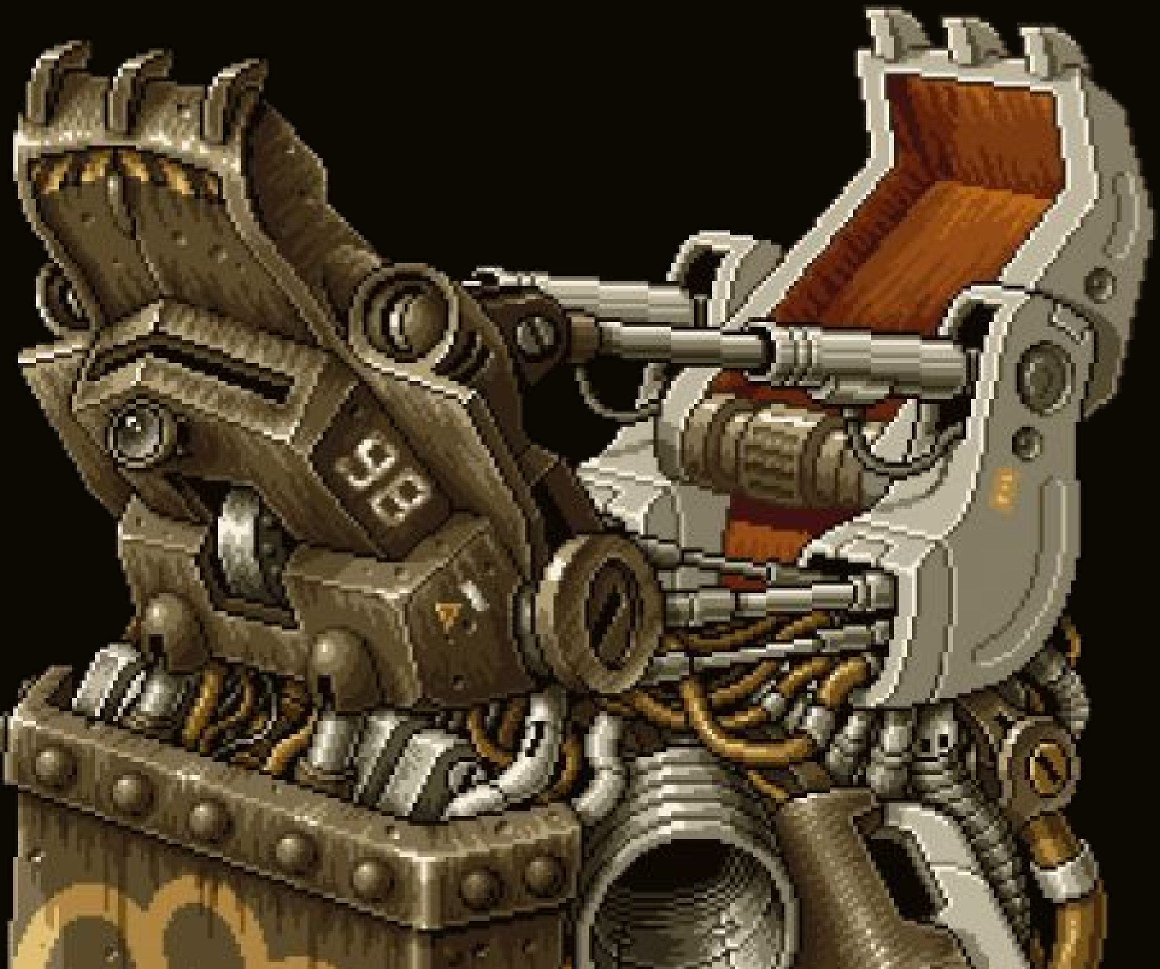
Nop-03 Sarubia tank

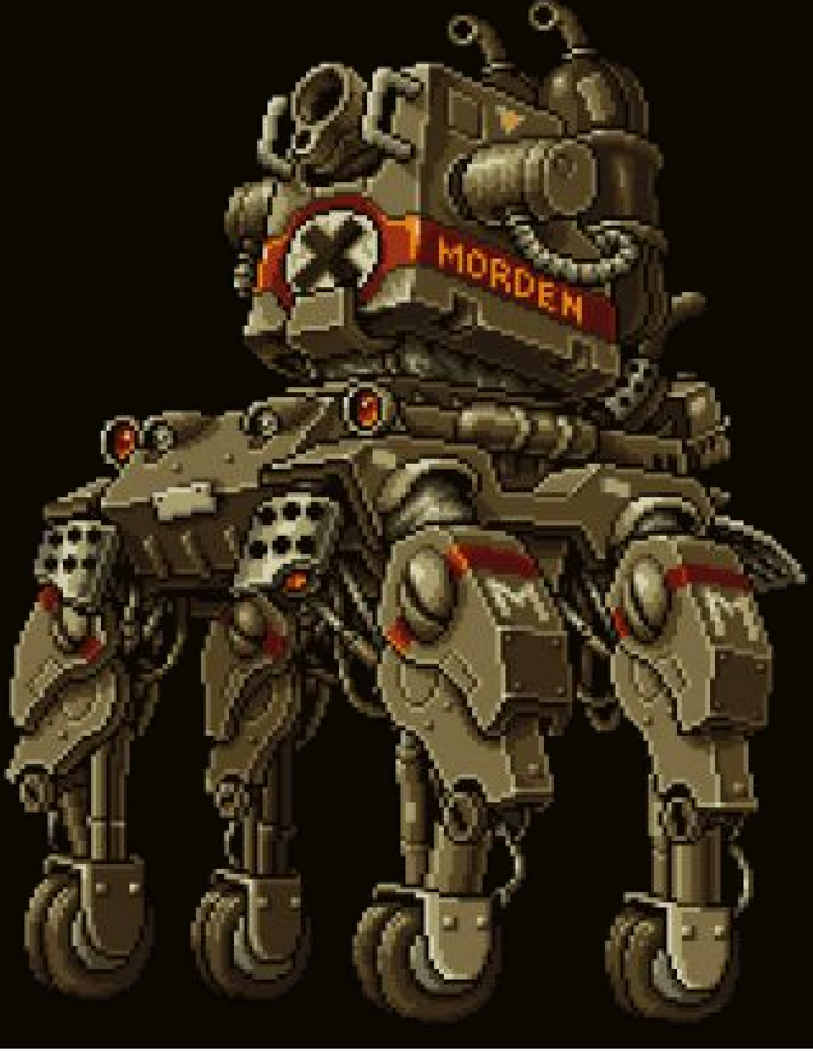


M-15A Bradley tank

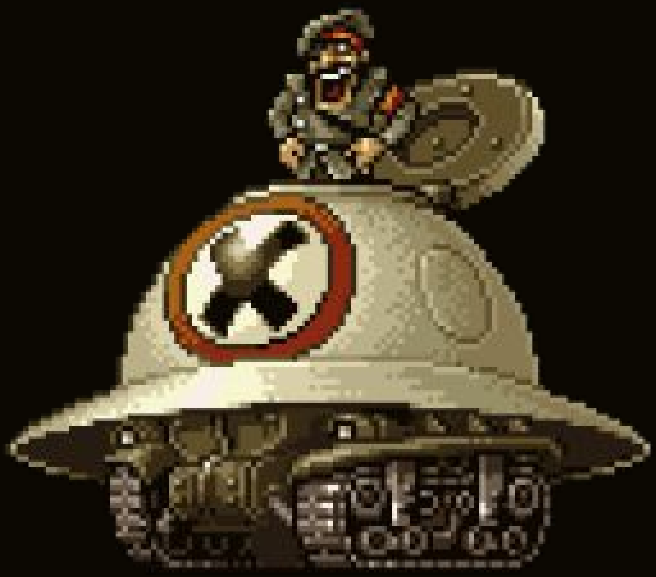


Subway Train (above)
Aeshi Nero (Mission 2 boss) (below)

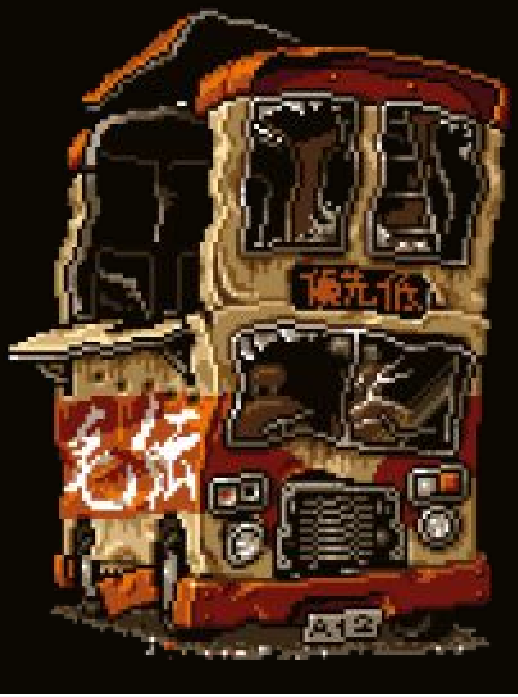




Dragon Nosuke (Mission 3 boss)

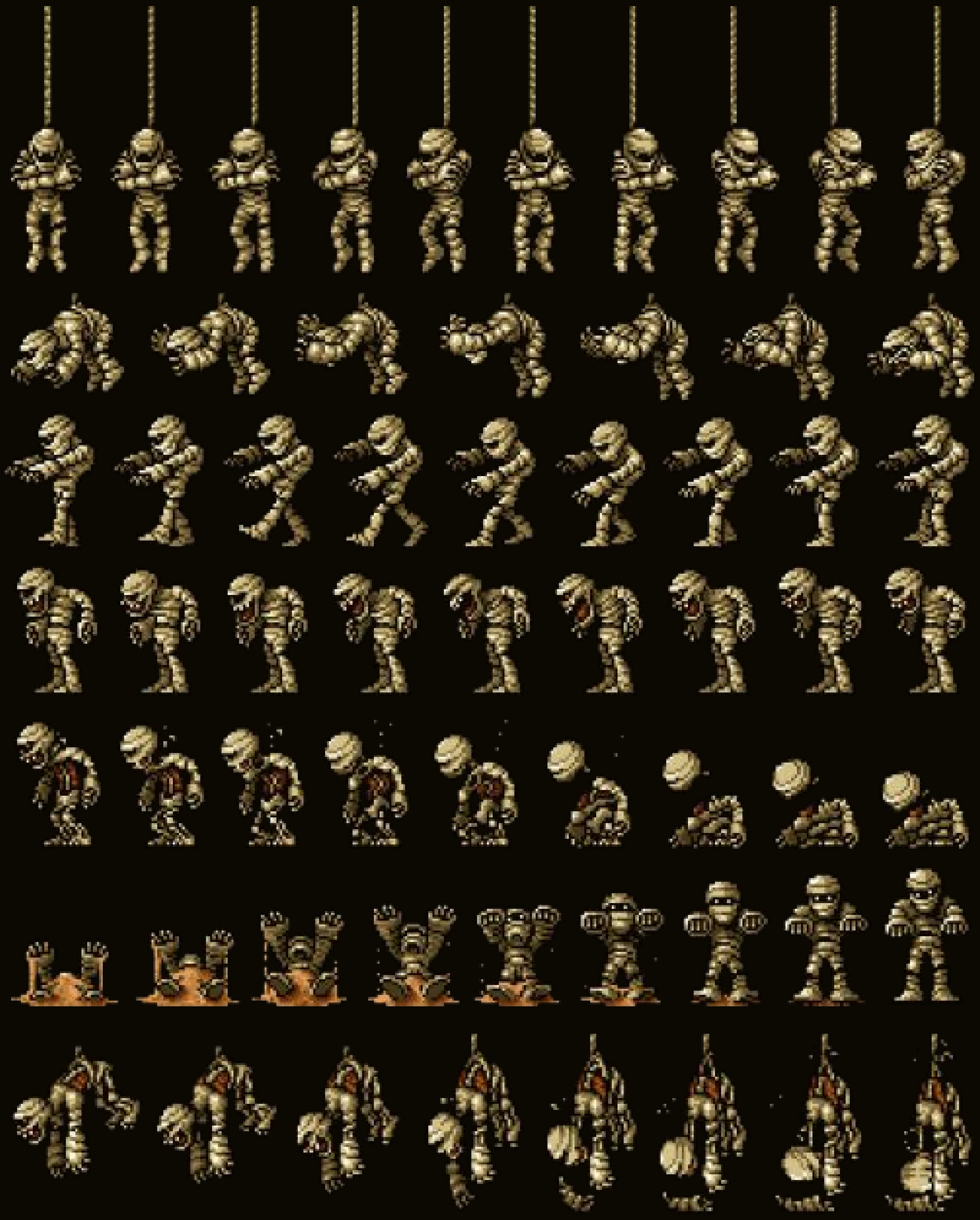


Morden Saucer

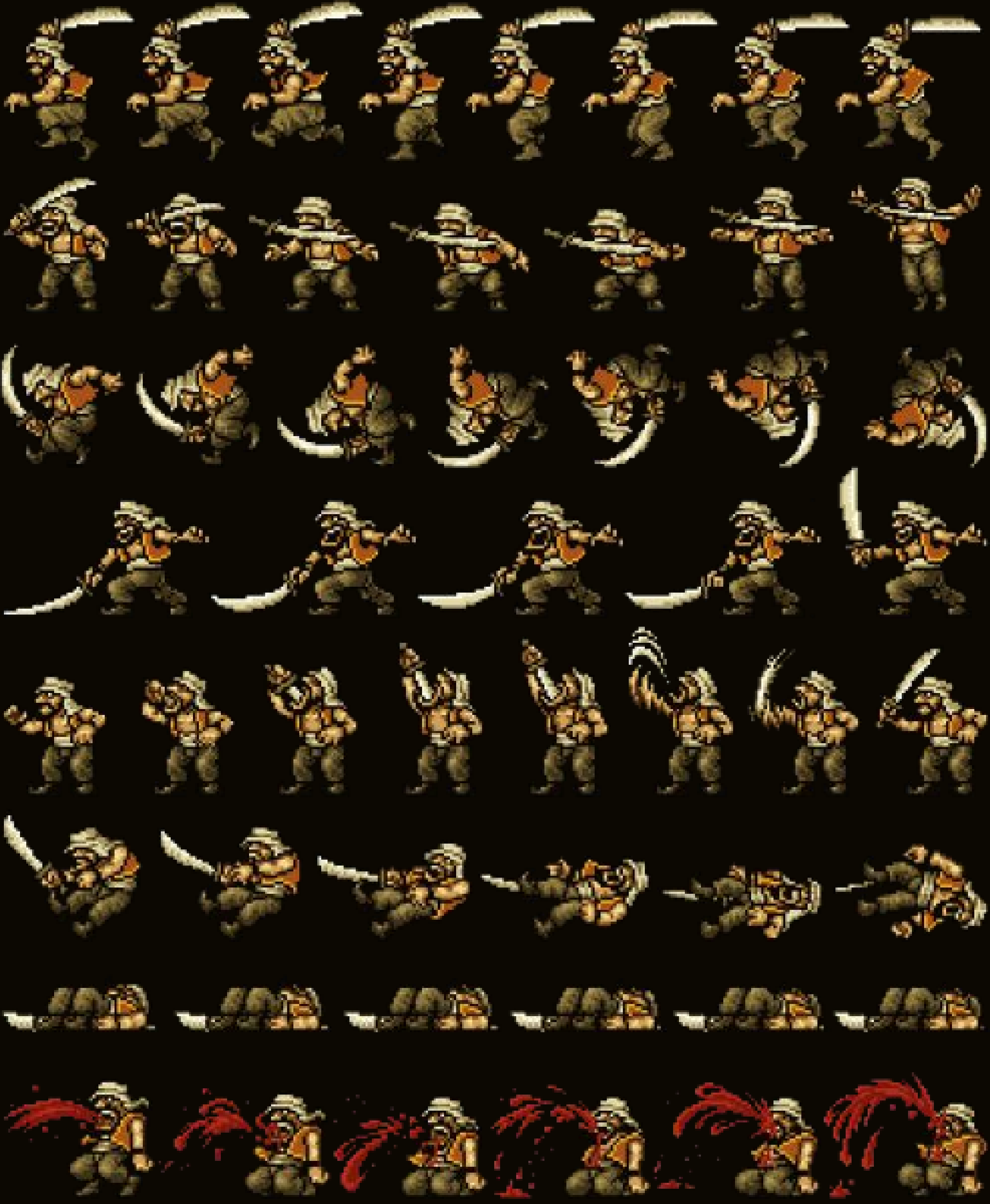


Double-Decker bus

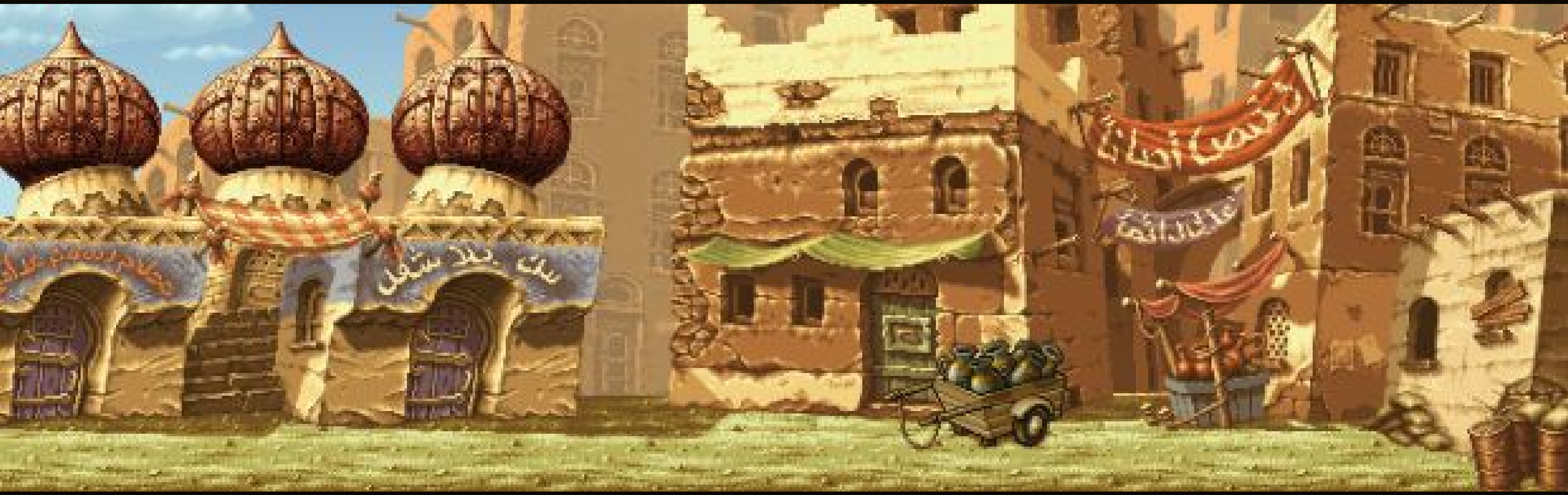
Various sprites and animation frames for the mummies in *Metal Slug 2* – the first supernatural enemies to appear in the Metal Slug series.



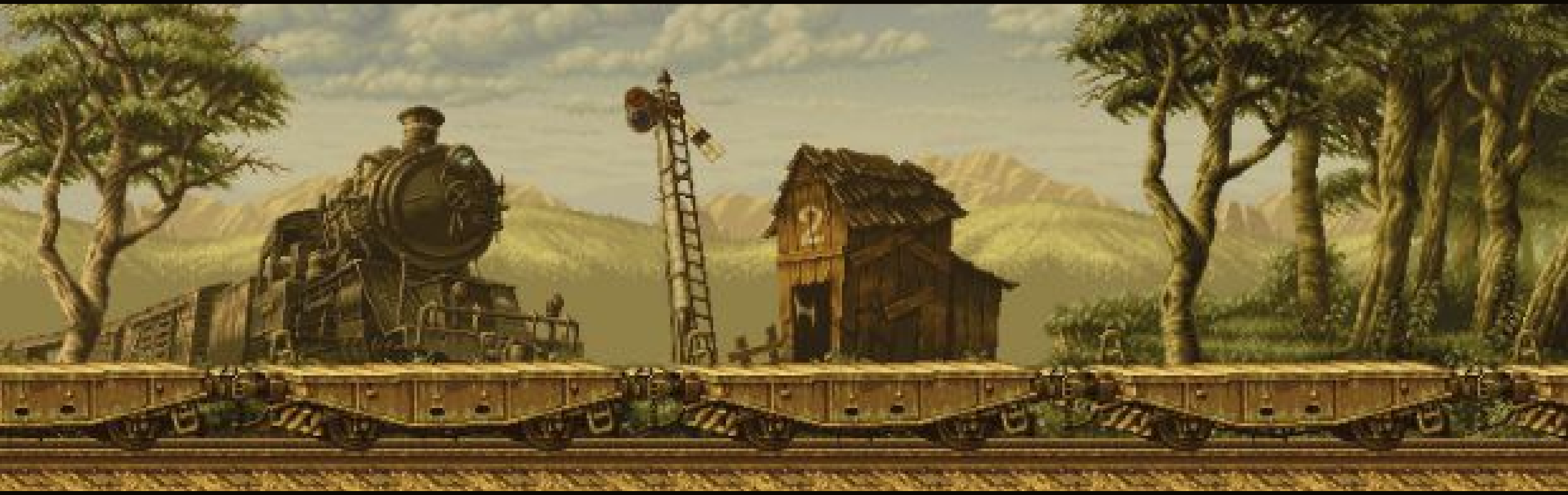
The Arabian Infantry have many members, all armed with razor-sharp swords. Impressively, the regular Arabian soldiers will throw their sword at you and then pull out a spare one from their mouths.



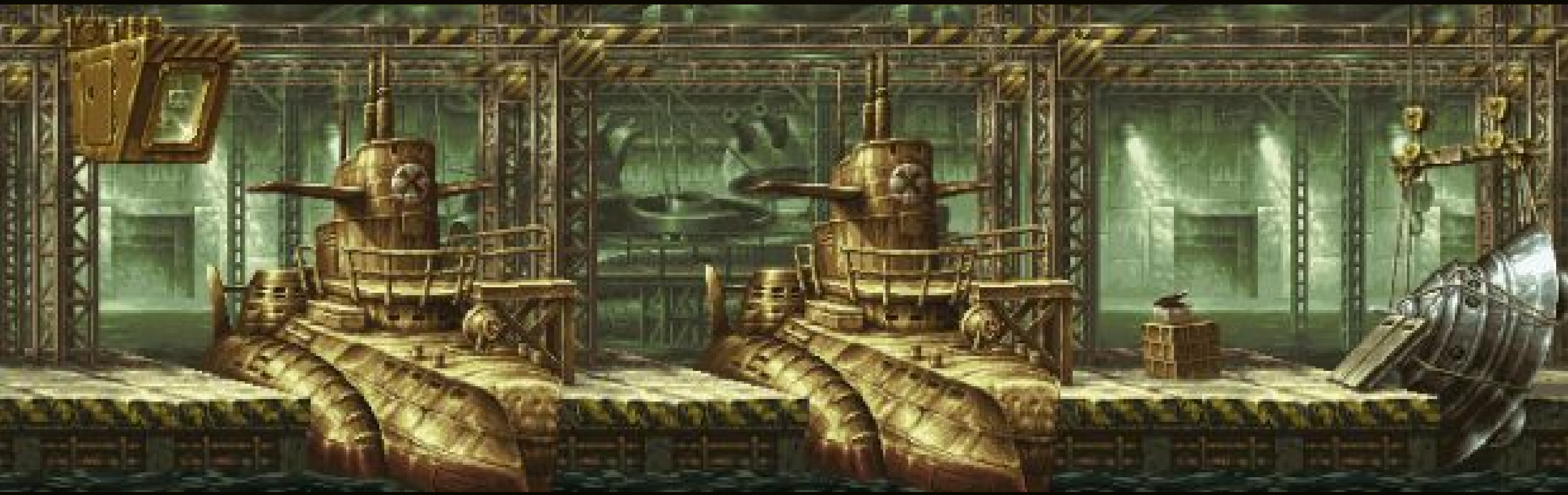
As with the first *Metal Slug*, the background art in *Metal Slug 2* is incredibly detailed and benefits from a stylised muted colour palette. Many of the scenes include animated elements and clever uses of colour to create perspective and depth.



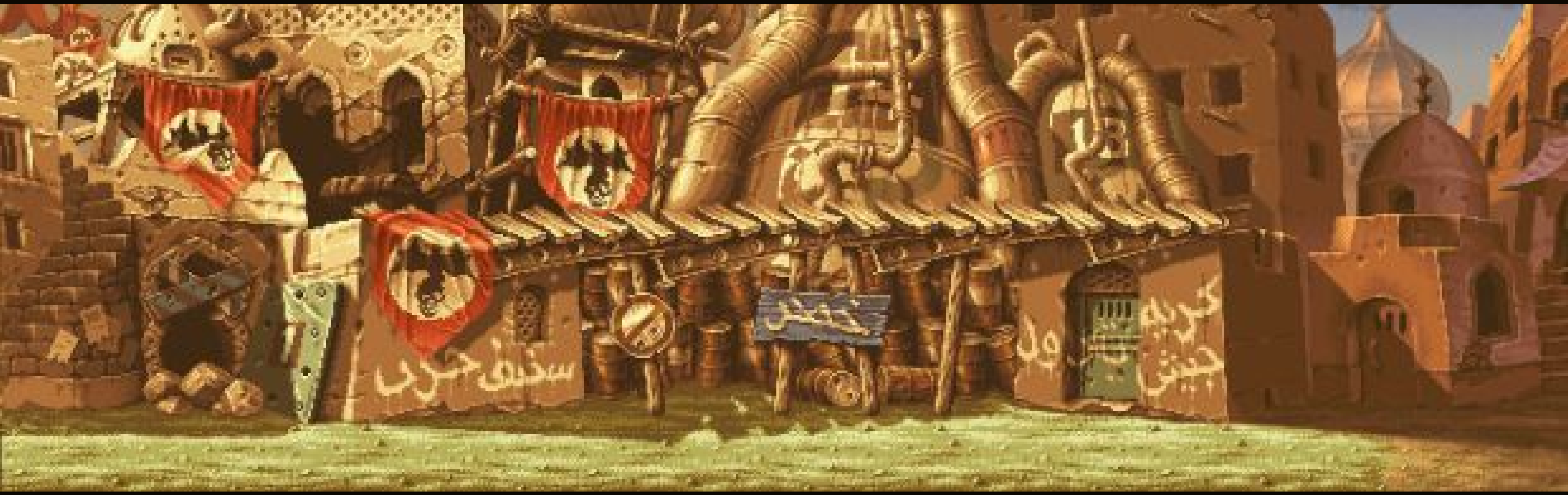
Mission 1

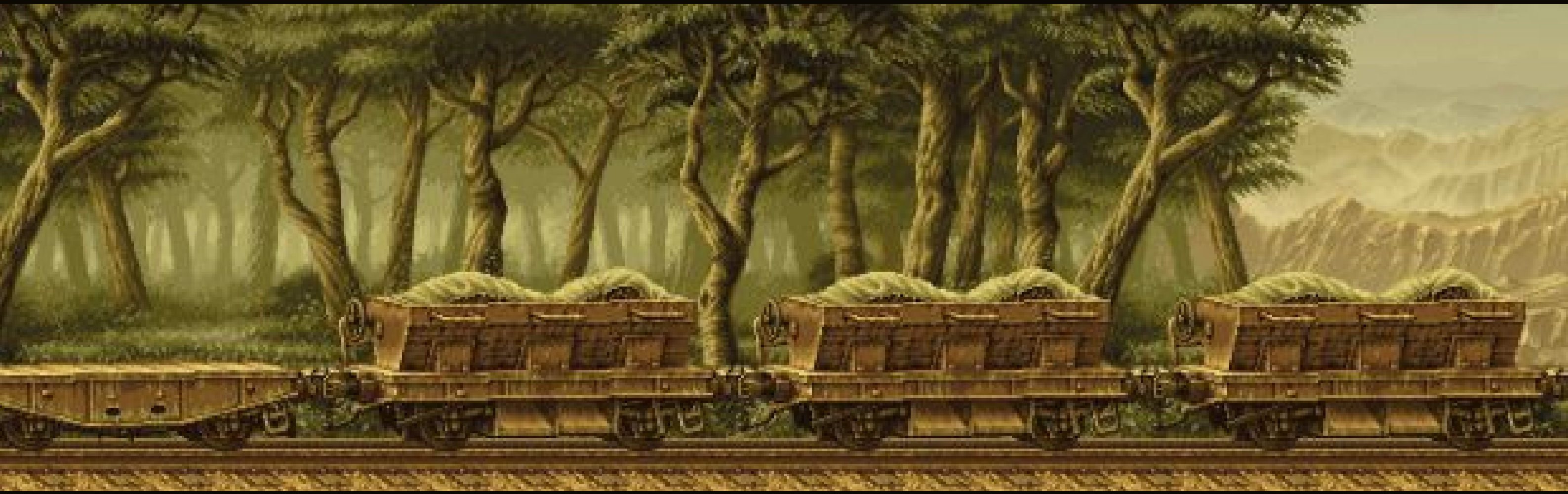


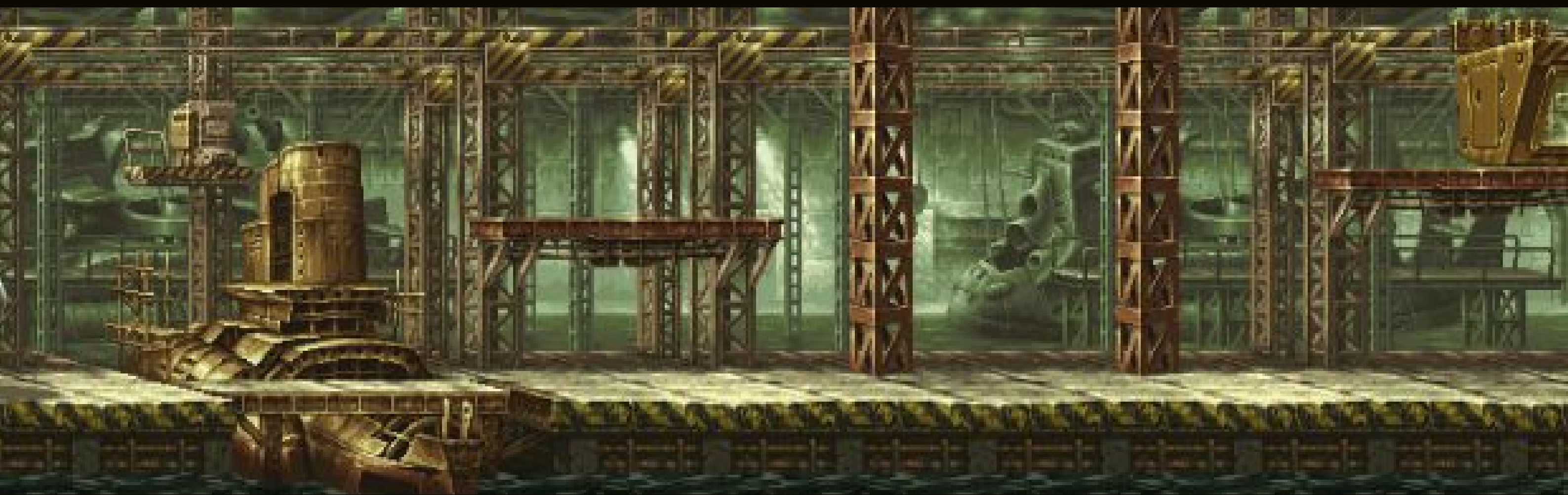
Mission 3



Final Mission







First released: 1999 / Players: 2 / Developed by: SNK / Published by: SNK

METAL SLUG X

SUPER VEHICLE-001

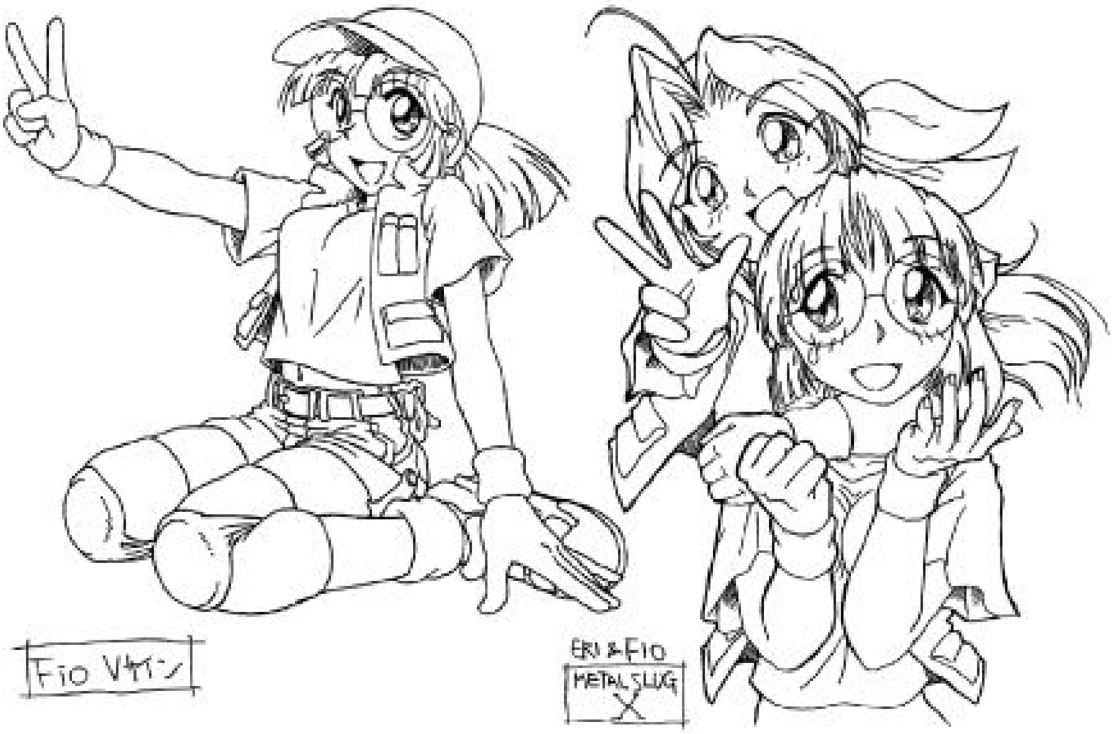
ANDROID ARC IOS NG NGCD

SWITCH PS PS3 PS4

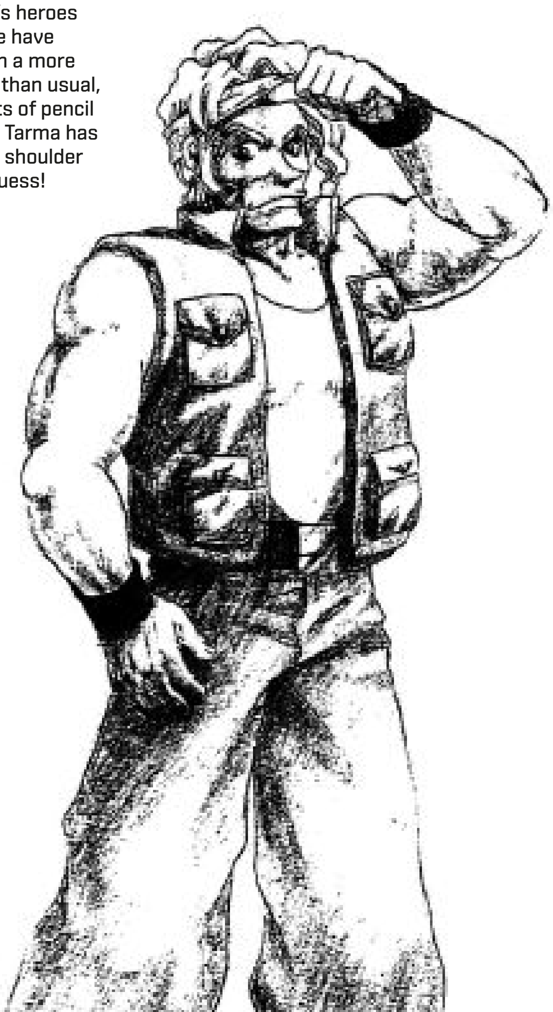
PSP VITA WII PC ONE

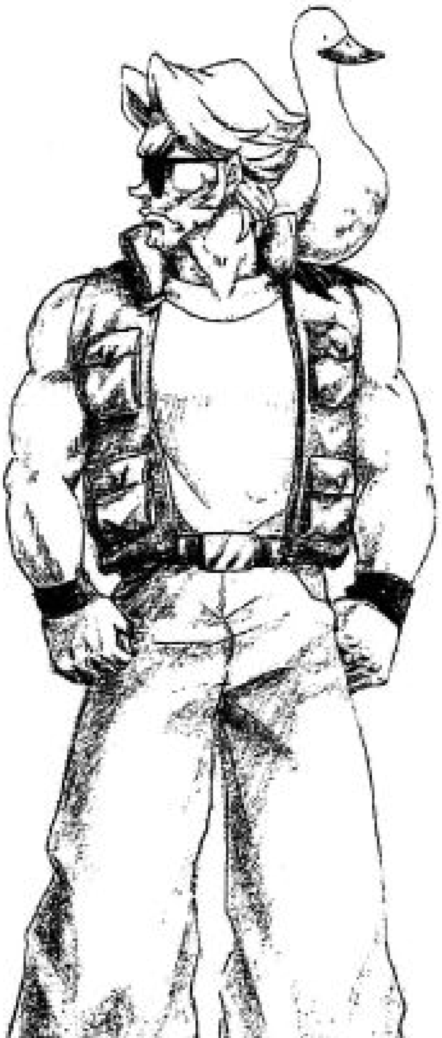
Metal Slug 2 was well received, but it was by no means perfect; it was plagued by slowdown in certain sections of the game, which caused concern for many fans. Keen to address this issue, SNK released *Metal Slug X* the following year; the slowdown was largely eradicated, and the developers took the time to make many more amendments, such as graphical and audio changes, new weapons and foes, revised item and enemy placements and much more besides. An effort was also made to increase the already stern difficulty level, making this a true test for Metal Slug aficionados. Due to these welcome alterations and enhancements, many players prefer *Metal Slug X* over *Metal Slug 2*.

By the time *Metal Slug X* came about, Fio and Eri were already quite well developed as characters, and they each bring their own unique personality to the game.

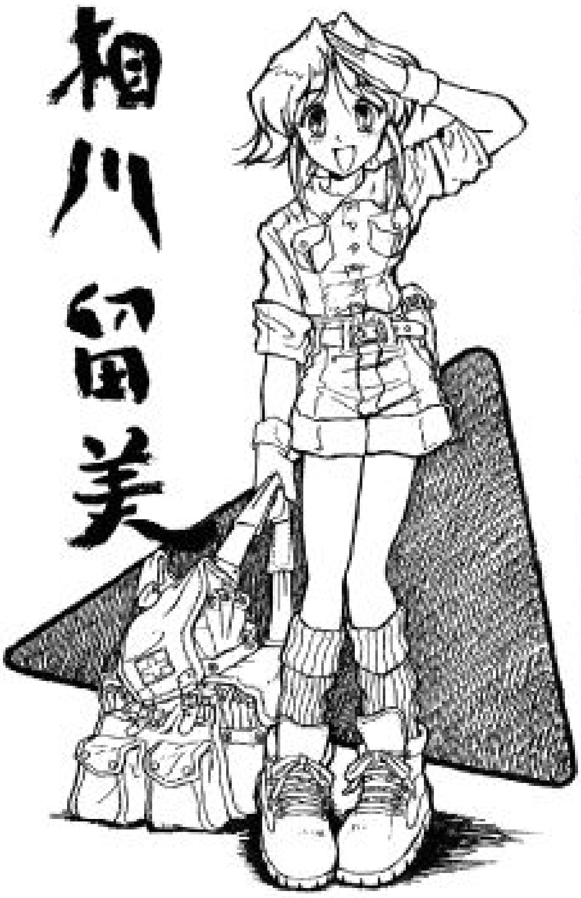


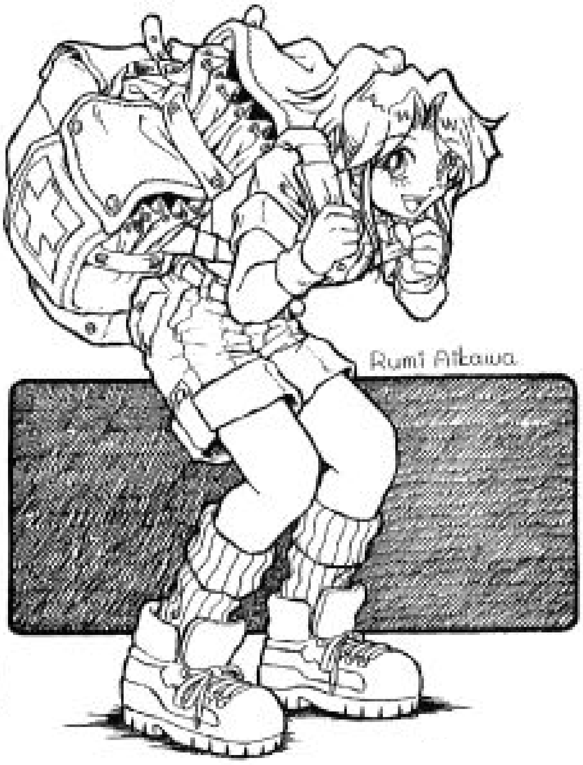
These concept sketches for the game's heroes all seem to be have been drawn in a more serious style than usual, and utilise lots of pencil shading. Why Tarma has a duck on his shoulder is anyone's guess!

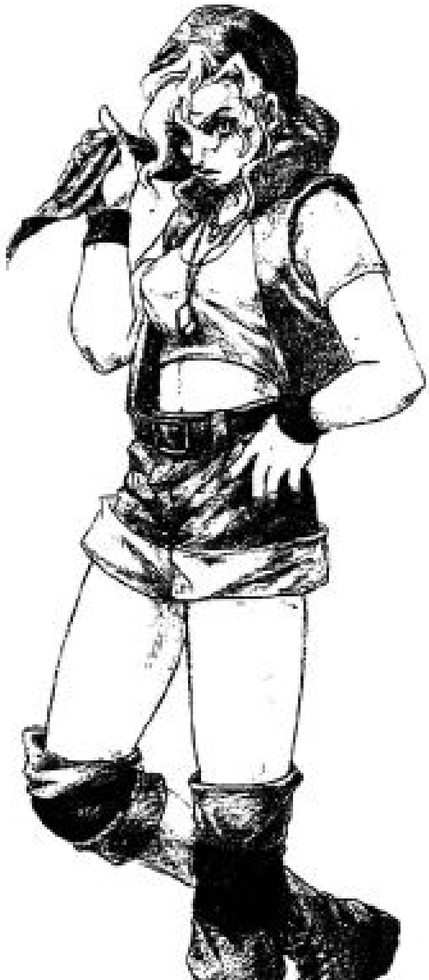


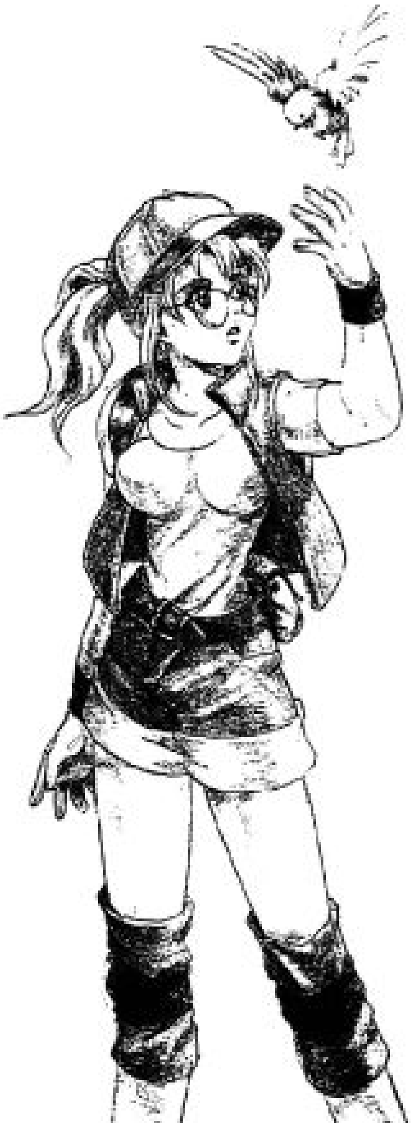


First appearing in *Metal Slug 2*, Rumi Aikawa is an NPC who pops up in various Metal Slug games. She carries a huge backpack and, when collided with, drops power-ups which benefit the player.

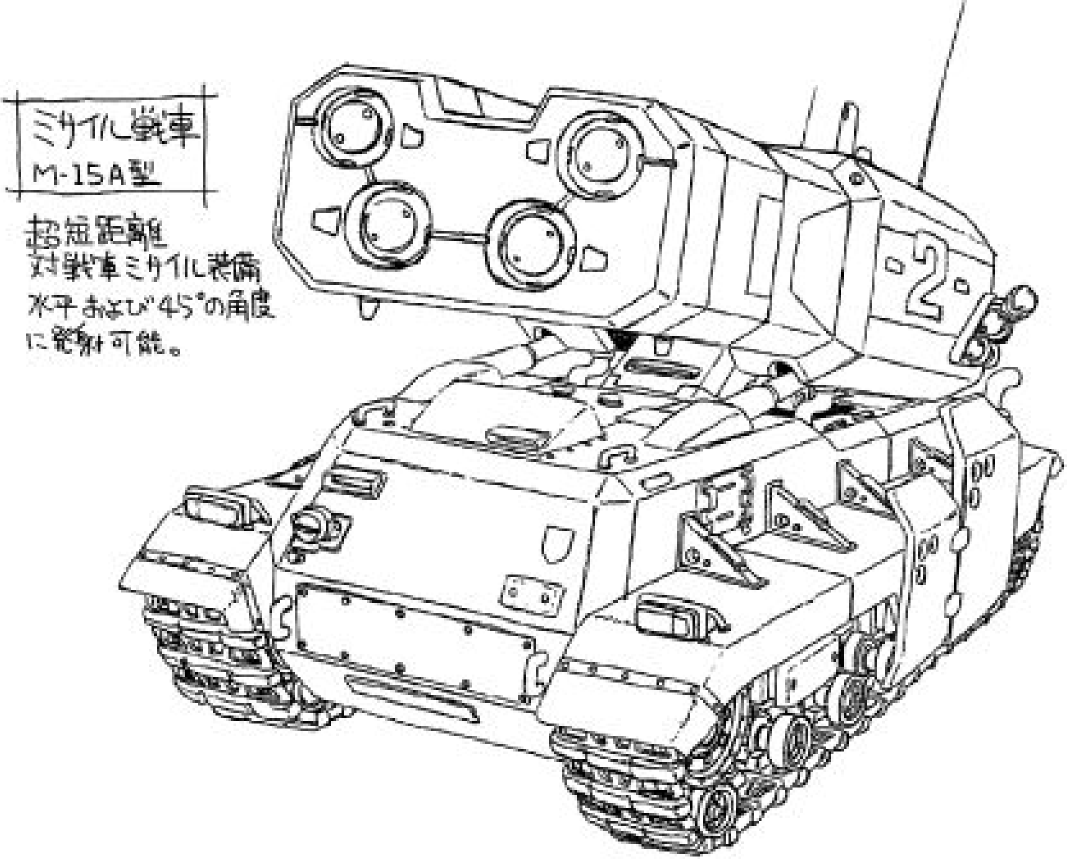




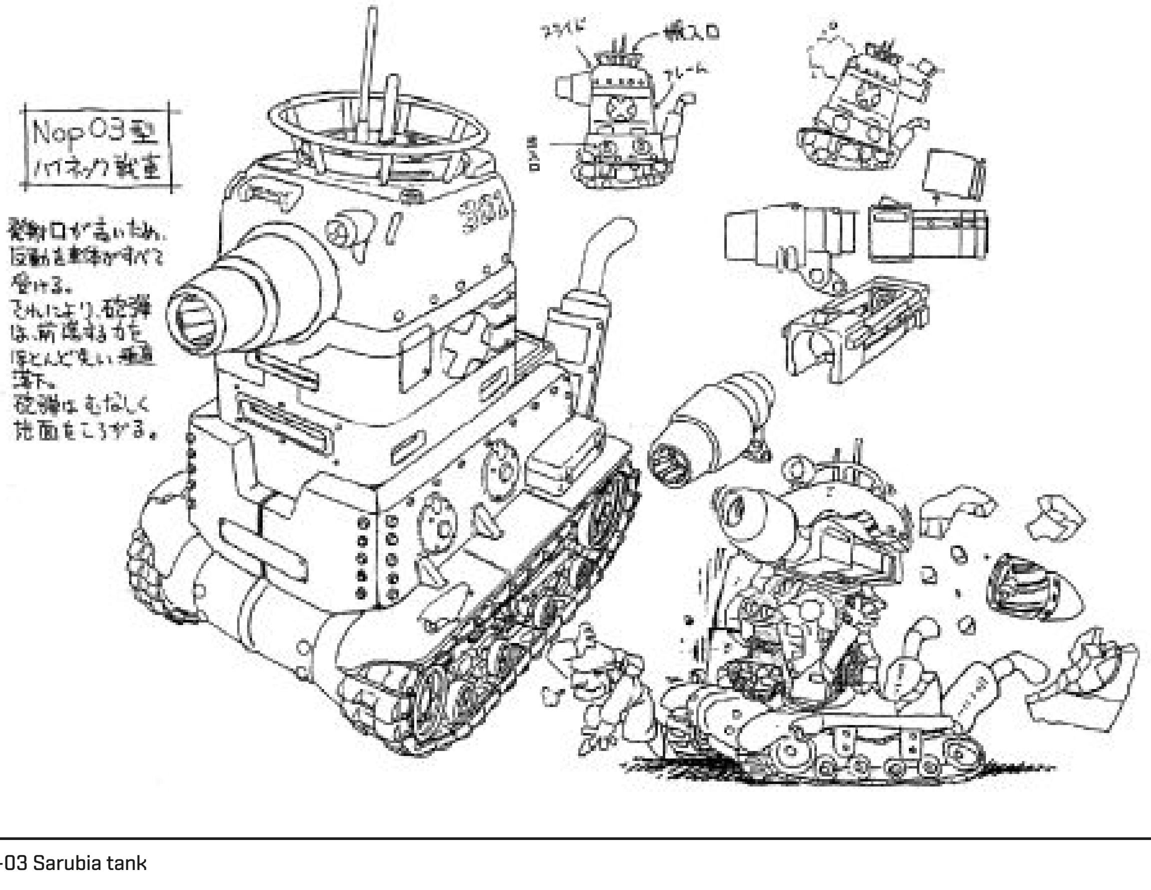




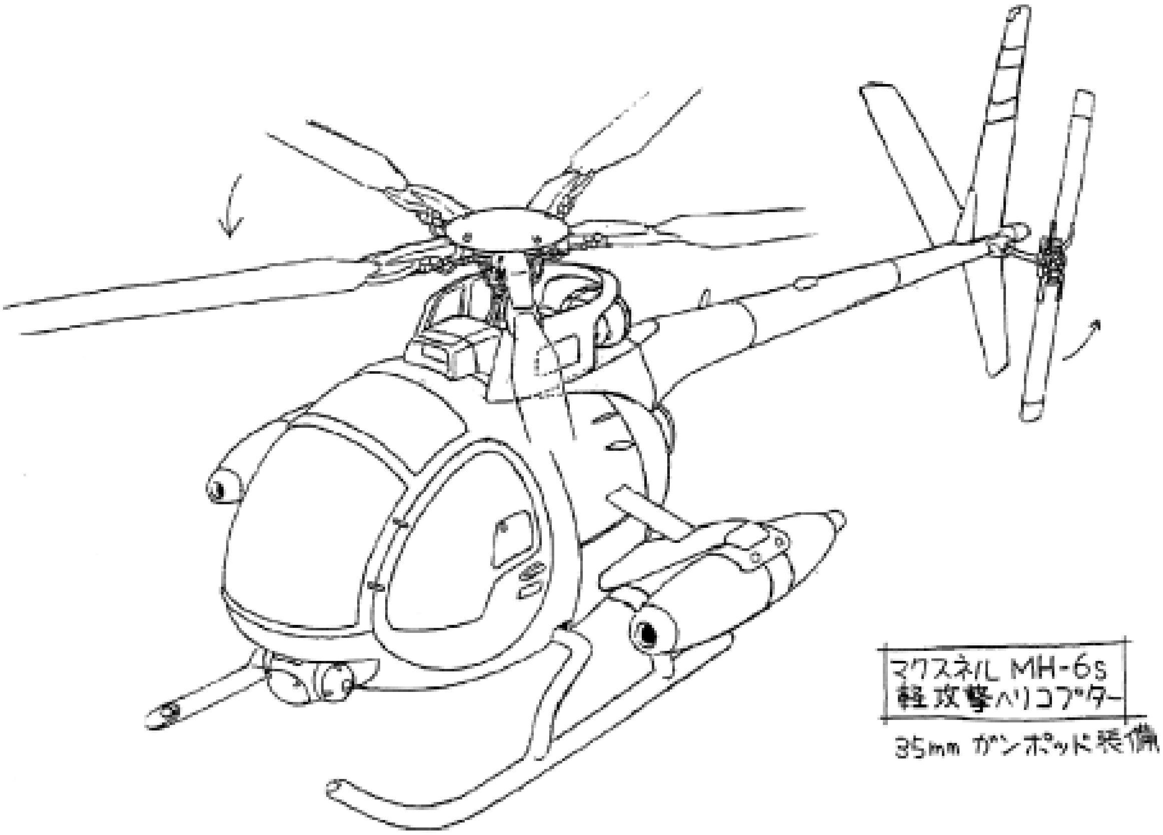
All based on actual military vehicles, these designs from *Metal Slug X* showcase special modifications, such as additional guns and armour.


ミサイル戦車
M-15A型
超短距離
対戦車ミサイル装備
水平および45°の角度
に発射可能。
2

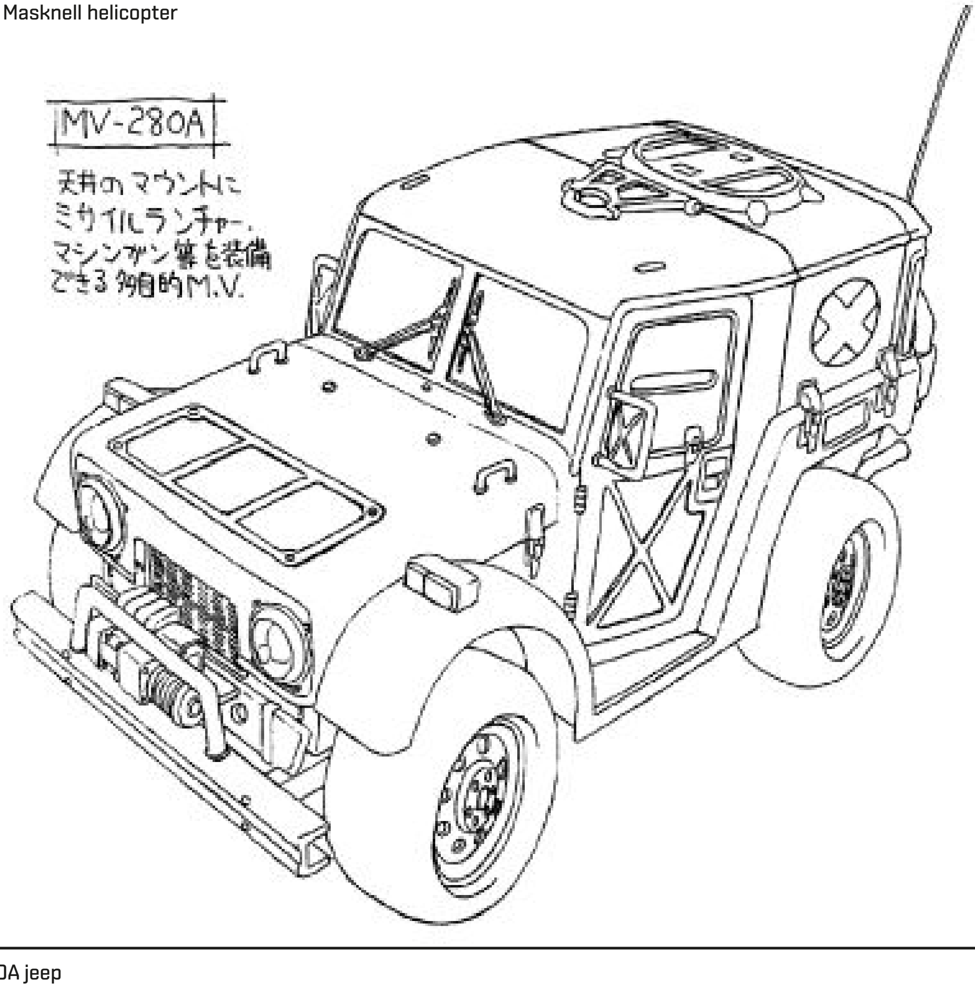
M-15A Bradley tank


Nop03型
ハイネック戦車
発射口が高いため、
反動を車体がすべて
受ける。
それにより、砲弾
は、前進する力も
ほとんど無い垂直
落下。
砲弾はむなしく
地面をころがる。
302
スライド
搬入口
フレーム
搬入口

Nop-03 Sarubia tank

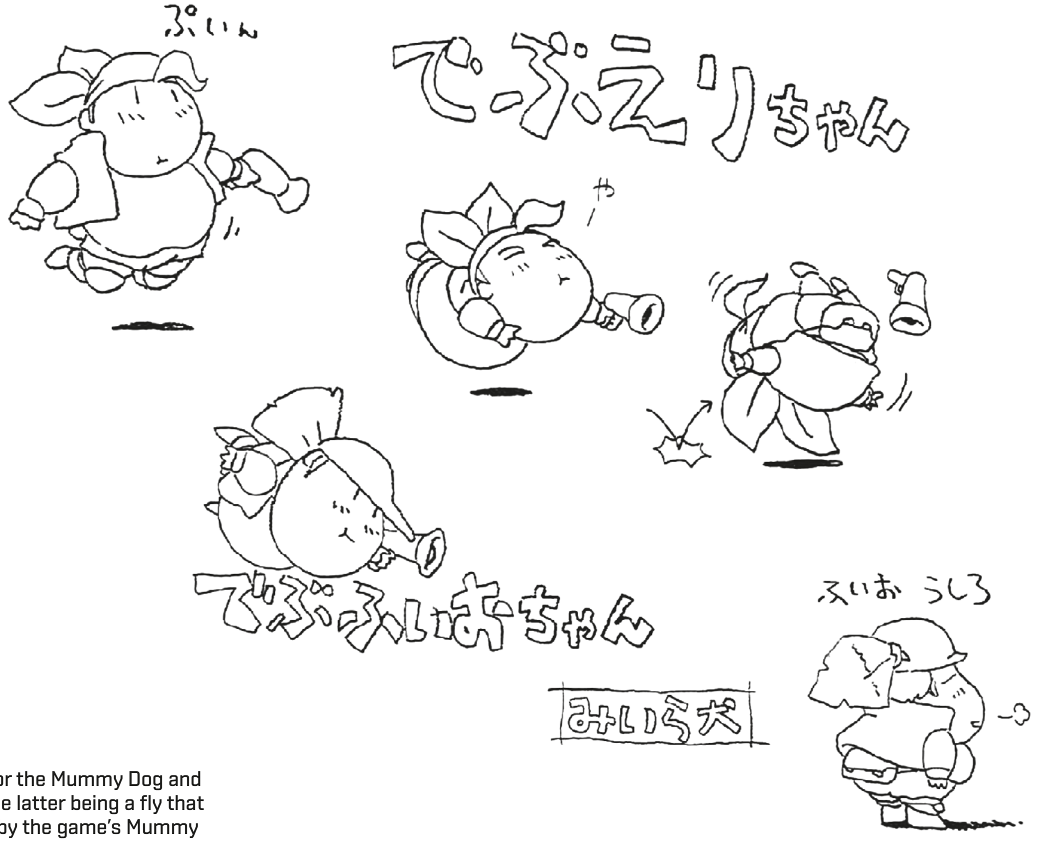

マクスネル MH-6s
軽攻撃ヘリコプター
35mm ガンポッド装備

MH-6S Masknell helicopter

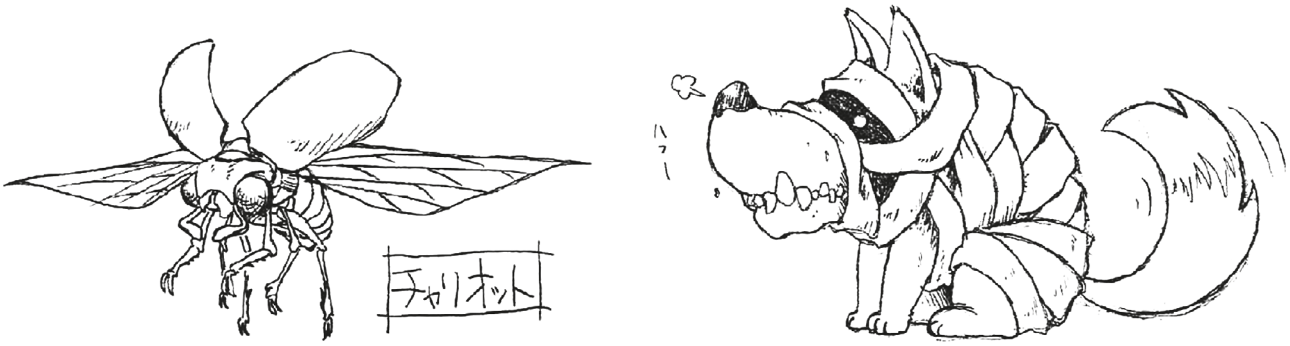

MV-280A
天井の マウントに
ミサイルランチャー、
マシンガン等を装備
できる 多目的M.V.

MV-280A jeep

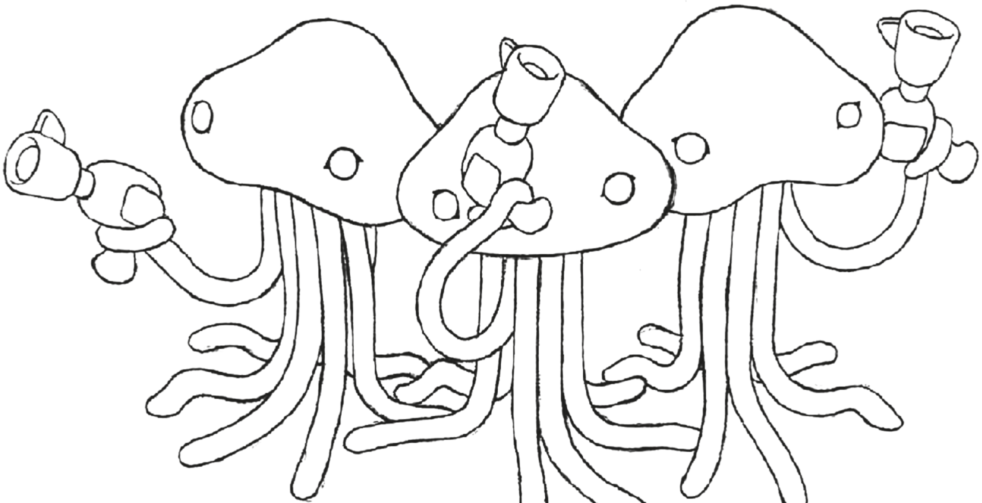
Early sketches showing the humorous 'obese' transformations and design for the 'chubby' gun.


ぷいん
でぶえりちゃん
や
でぶふぃおちゃん
ふぃお うしろ
みいら犬

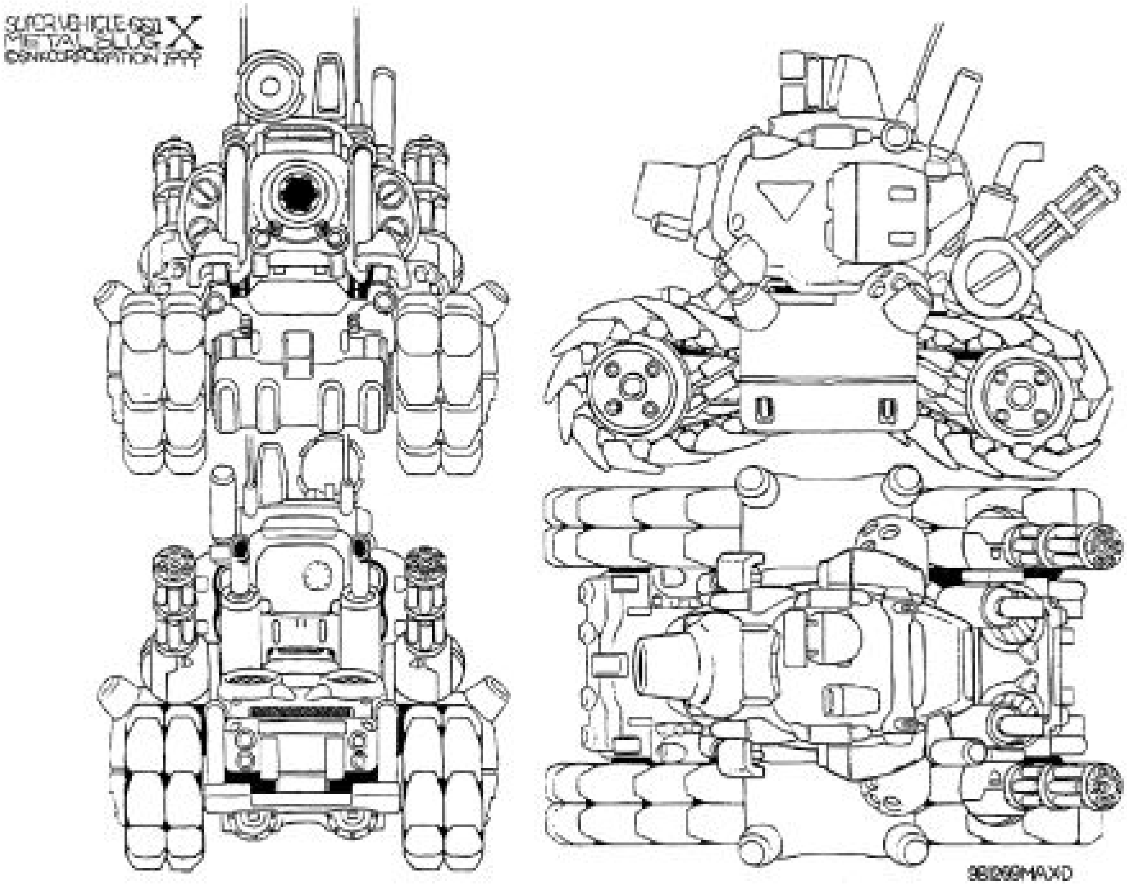
Sketches for the Mummy Dog and Chariot – the latter being a fly that is spat out by the game's Mummy enemies and chases you.



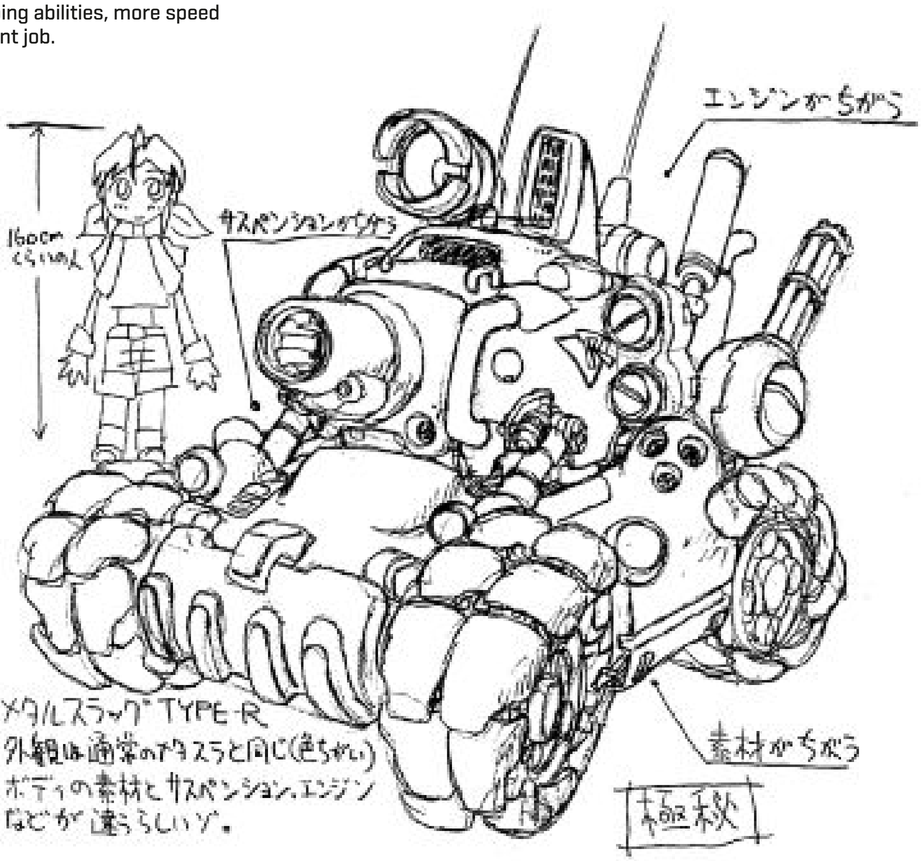
Sketch depicting a trio of Mars People, each one holding a ray gun.



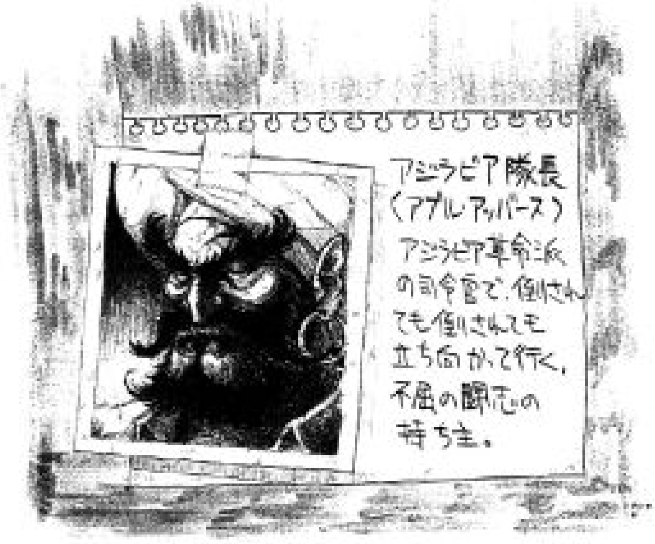
Front, rear, side and aerial views of the SV-001 tank. The design hasn't changed since the first *Metal Slug*, but it's nonetheless interesting to observe the previously unseen top-down view.

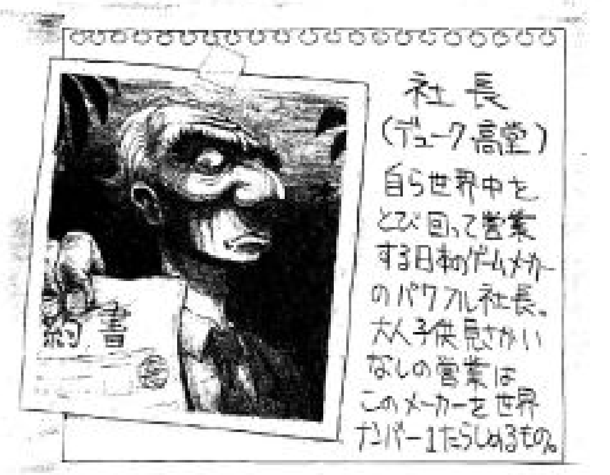

SUPER VEHICLE-001
METAL SLUG X
©SNK CORPORATION 1999
981208MAXD

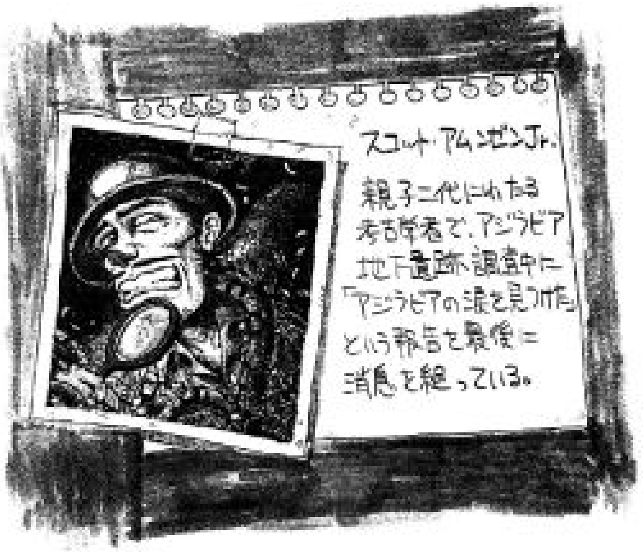
Making its first appearance as a playable slug in *Metal Slug X*, the SV-001 Type-R is essentially the same as the standard SV-001 but with better jumping abilities, more speed and a blingy gold paint job.

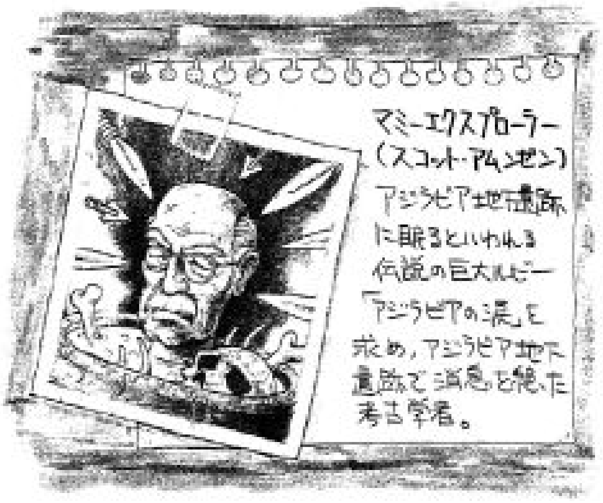

エンジンがちがう
サスペンションがちがう
160cm くらいの人
メタルスラッグ TYPE-R
外観は通常のメタスラと同じ(色ちがい)
ボディの素材とサスペンション、エンジンなどが違うらしいゾ。
素材がちがう
極秘

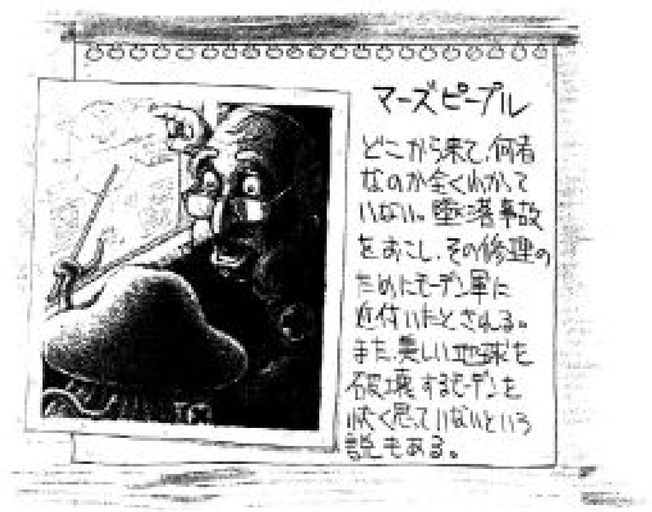
Various drawings and descriptions for the weird and wonderful characters that appear in *Metal Slug X*, such as Abul Abbas, Mummy explorer and Hyakutaro Ichimonji.

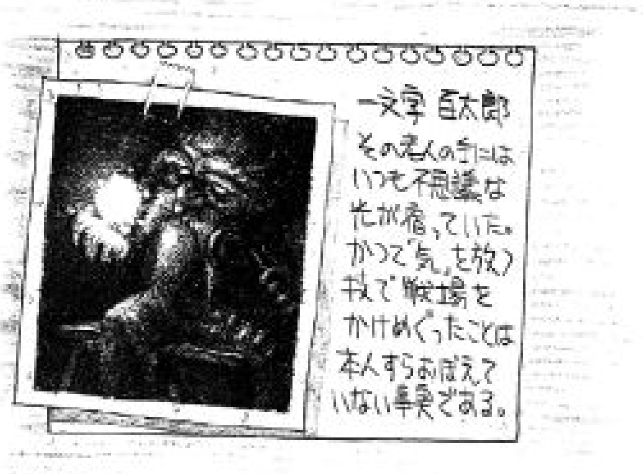

アジラビア隊長
（アブル アッバース）
アジラビア革命派
の司令官で、倒されて
も倒されても
立ち向かって行く、
不屈の闘志の
持ち主。


社長
（デューク高堂）
自ら世界中を
とび回って営業
する日本のゲームメーカー
のパワフル社長。
大人子供見さかい
なしの営業は
このメーカーを世界
ナンバー1たらしめるもの。
約書

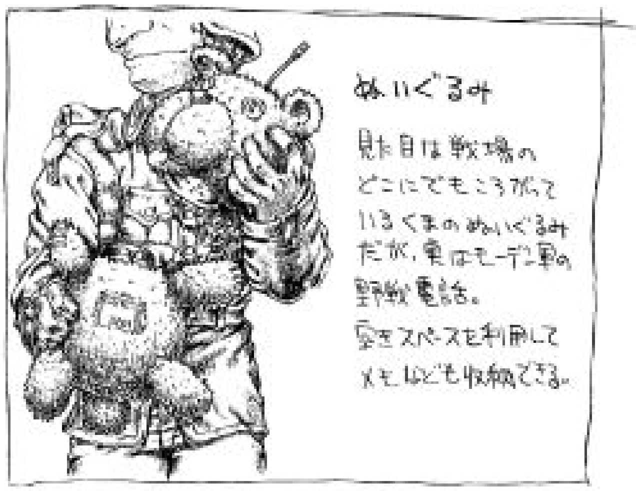

スコット・アムンゼンJr.
親子二代にわたる
考古学者で、アジラビア
地下遺跡調査中に
「アジラビアの涙を見つけた」
という報告を最後に
消息を絶っている。


マミーエクスプローラー
（スコット・アムンゼン）
アジラビア地下遺跡
に眠るといわれる
伝説の巨大ルビー
「アジラビアの涙」を
求め、アジラビア地下
遺跡で消息を絶った
考古学者。

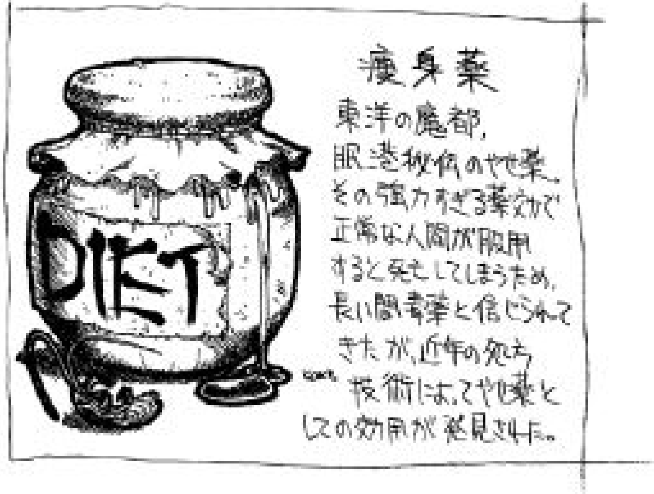

マーズピープル
どこから来て、何者
なのか全くわかって
いない。墜落事故
をおこし、その修理の
ためにモーデン軍に
近付いたとされる。
また、美しい地球を
破壊するモーデンを
快く思っていないという
説もある。


一文字 百太郎
その老人の手には
いつも不思議な
光が宿っていた。
かつて「気」を放つ
技で戦場を
かけめぐったことは
本人すらおぼえて
いない事実である。

Various drawings and descriptions for the many items you encounter in *Metal Slug X*. The developers must have had great fun coming up with ideas such as The Teddy Bear Radio!

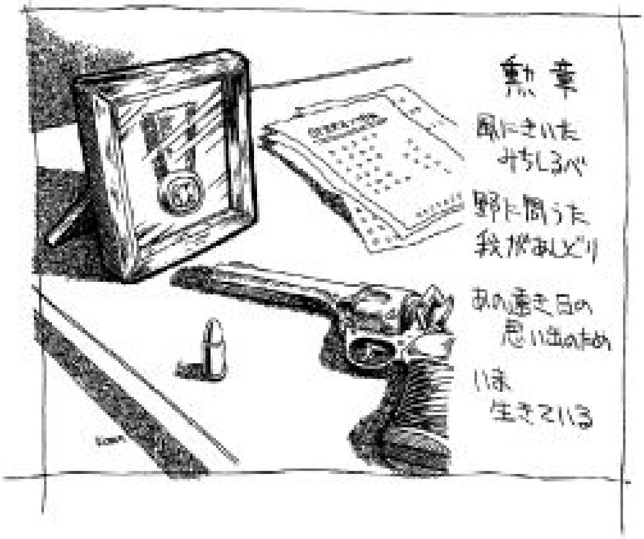

ぬいぐるみ

見た目は戦場のどこにでもころがっているくまのぬいぐるみだが、実はモーデン軍の野戦電話。
空きスペースを利用してメモなども収納できる。

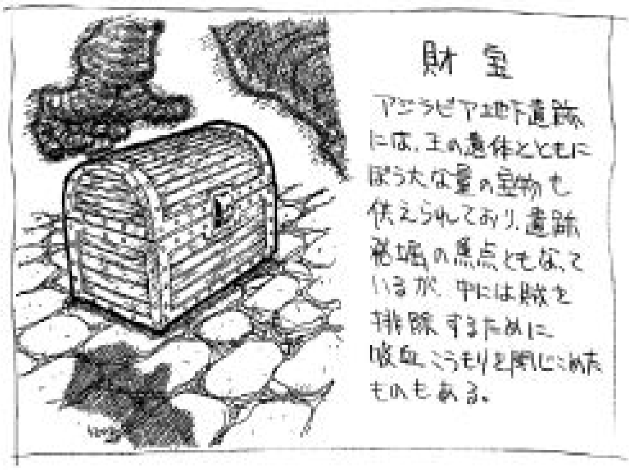


痩身薬

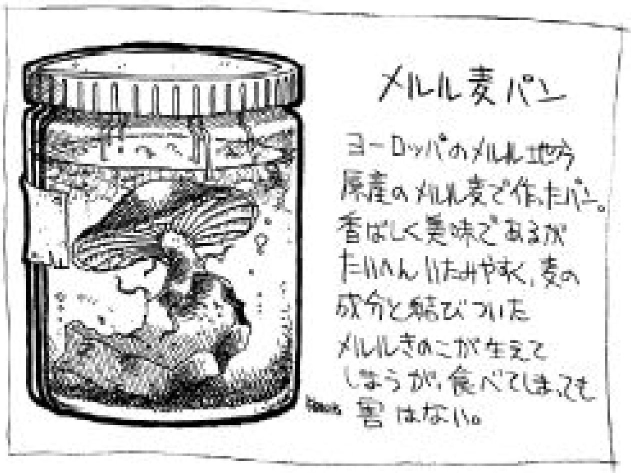
東洋の魔都、眠港秘伝のやせ薬。その強力すぎる薬効で正常な人間が服用すると死亡してしまうため、長い間毒薬と信じられてきたが、近年の先端技術によってやせ薬としての効用が発見された。


勲章

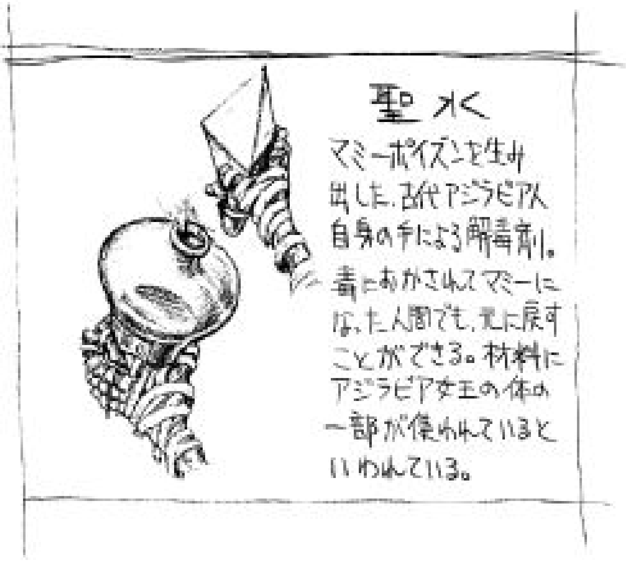
風にきいた
みちしるべ
野に闘うた
我があしどり
あの遠き日の
思い出のため
いま
生きている


財宝

アジラビア地下遺跡には、王の遺体とともにぼう大な量の宝物も供えられており、遺跡発掘の焦点ともなっているが、中には賊を排除するために吸血こうもりを閉じこめたものもある。

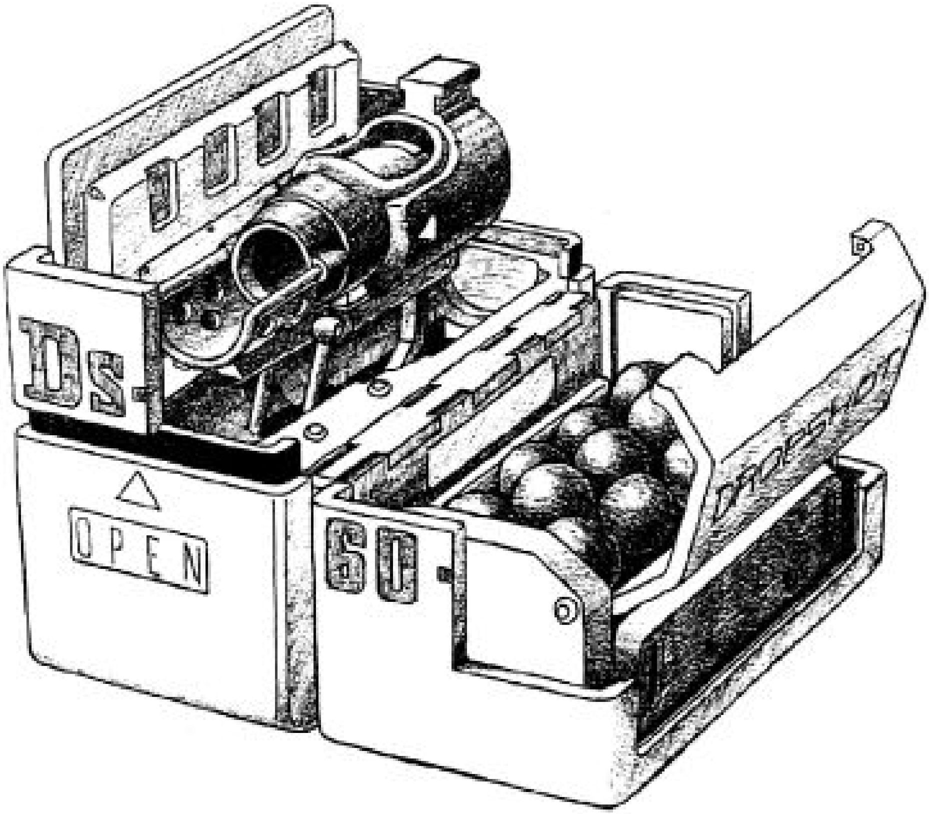

メルル麦パン

ヨーロッパのメルル地方原産のメルル麦で作ったパン。香ばしく美味であるがたいへんいたみやすく、麦の成分と結びついたメルルきのこが生えてしまうが、食べてしまっても害はない。

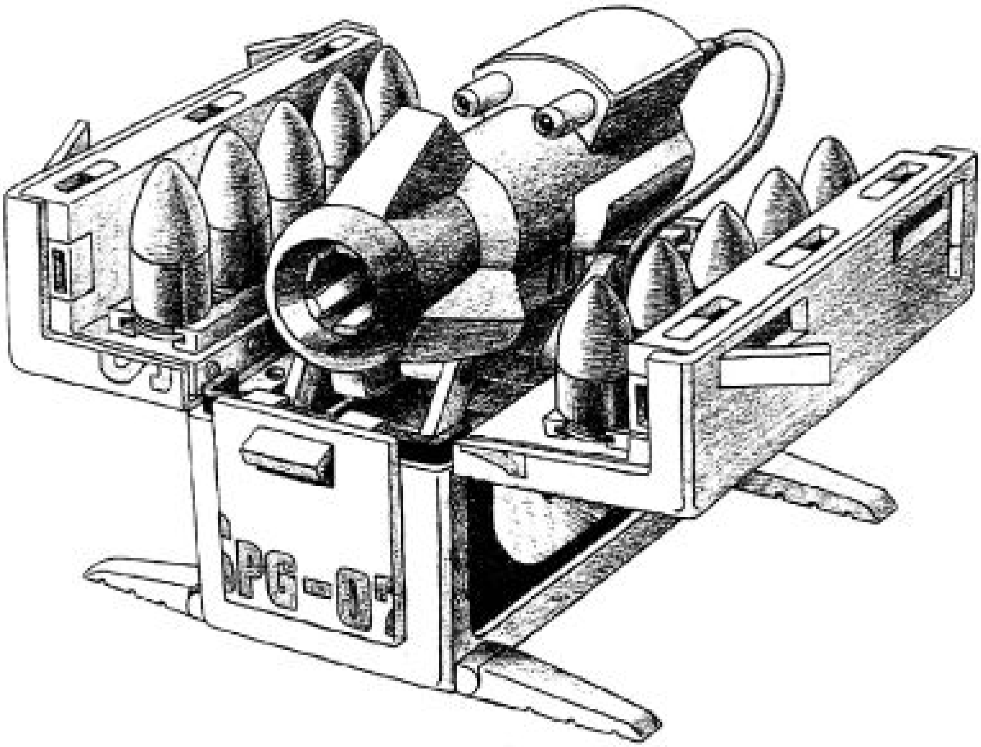

聖水

マミーポイズンを生み出した、古代アジラビア人自身の手による解毒剤。毒におかされてマミーになった人間でも、元に戻すことができる。材料にアジラビア女王の体の一部が使われているといわれている。

Metal Slug X introduced a new secondary weapon called the Drop Shot – a bouncing landmine that explodes on contact. Intricate isometric drawings were produced which show the designs of the game's weapons in painstaking detail.

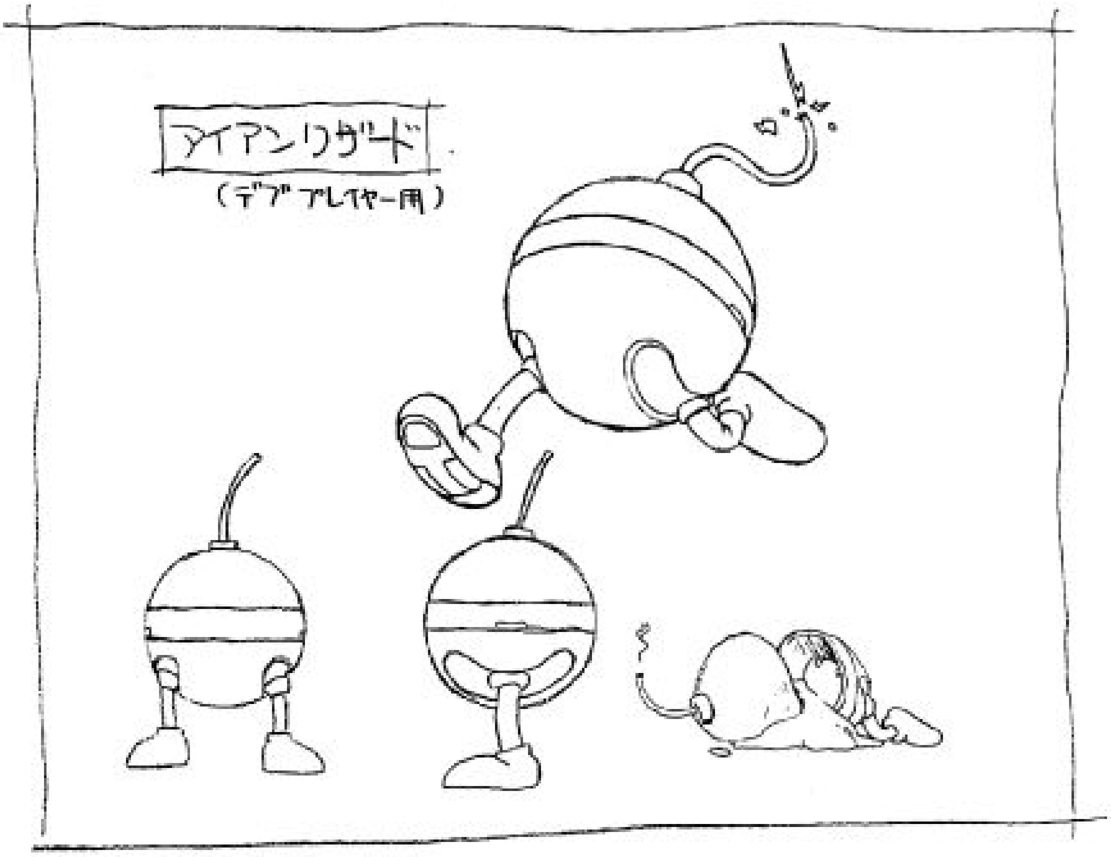


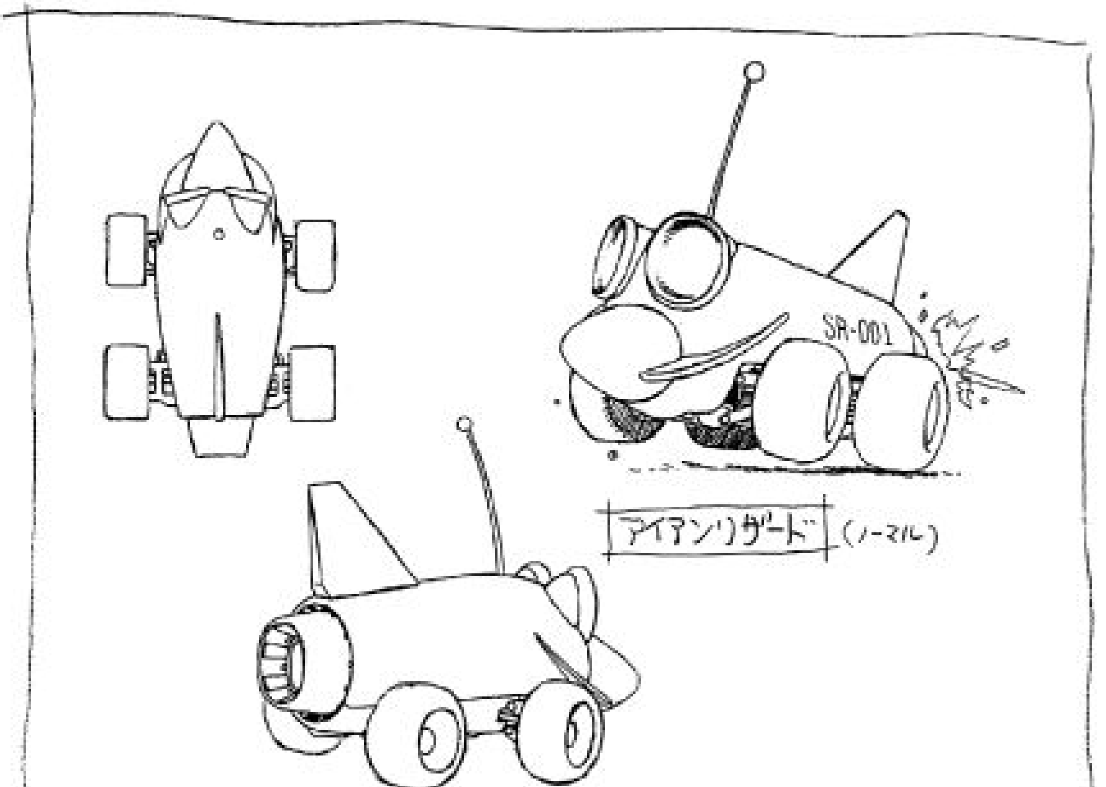
DS-09 Drop Shot



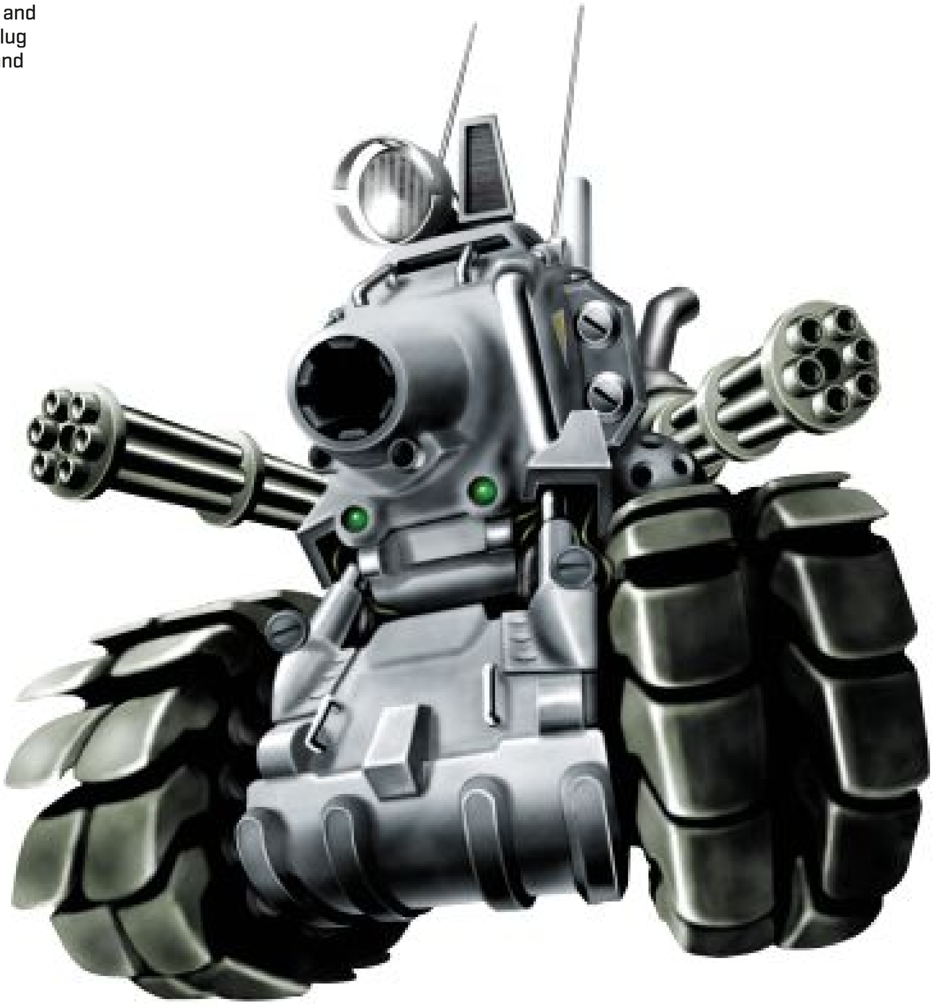
SPG-07 Super Grenade

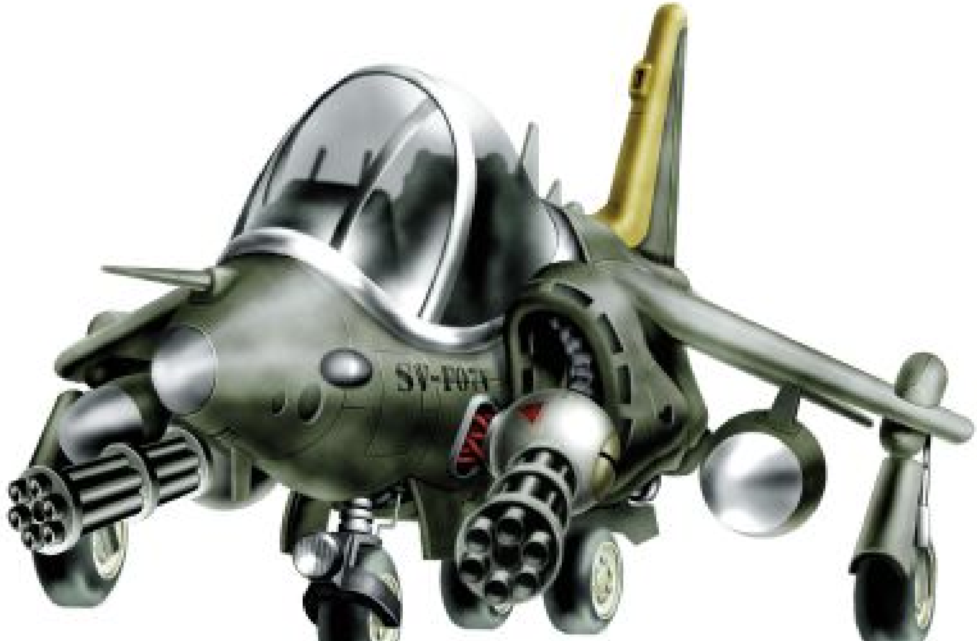
Another secondary weapon new to *Metal Slug X* is the quirky Iron Lizard. When fired, it flies across the floor on its wheels until it hits its target. The sketches below show a couple of proposed concepts.

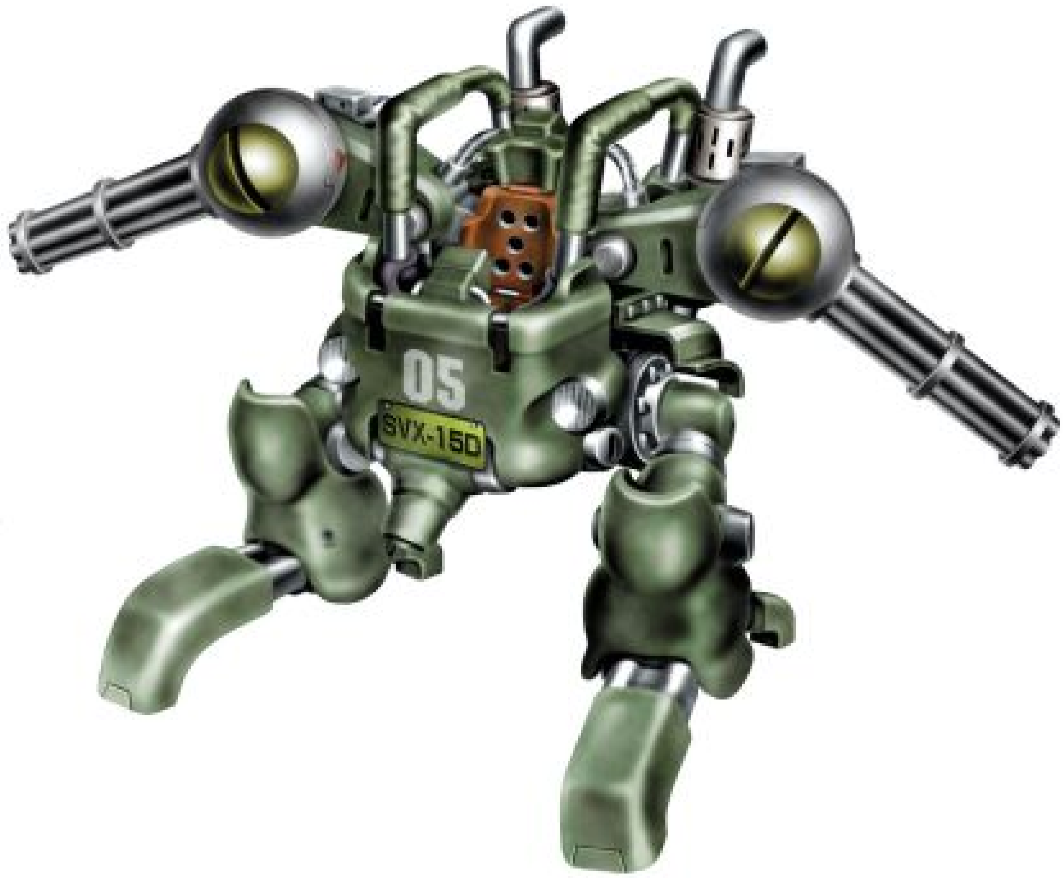

アイアンリザード
（デブプレイヤー用）

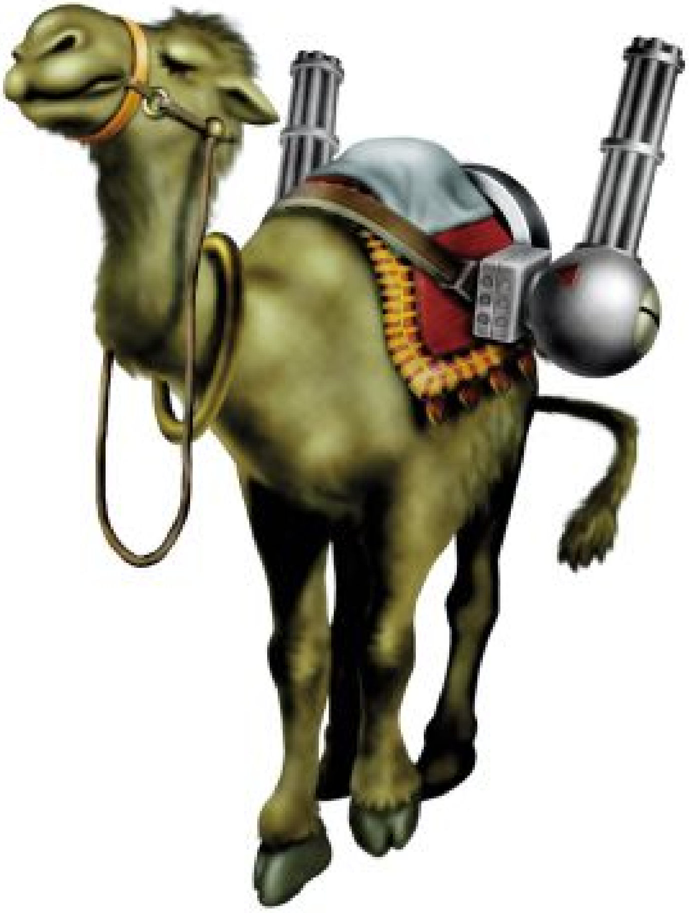

SR-001
アイアンリザード（ノーマル）

Highly polished airbrushed artwork from *Metal Slug X*, showing the SV-001 Tank and new slugs: the SV-F07V Slug Flyer, SVX-15D Slugnoid and SV-Camel.

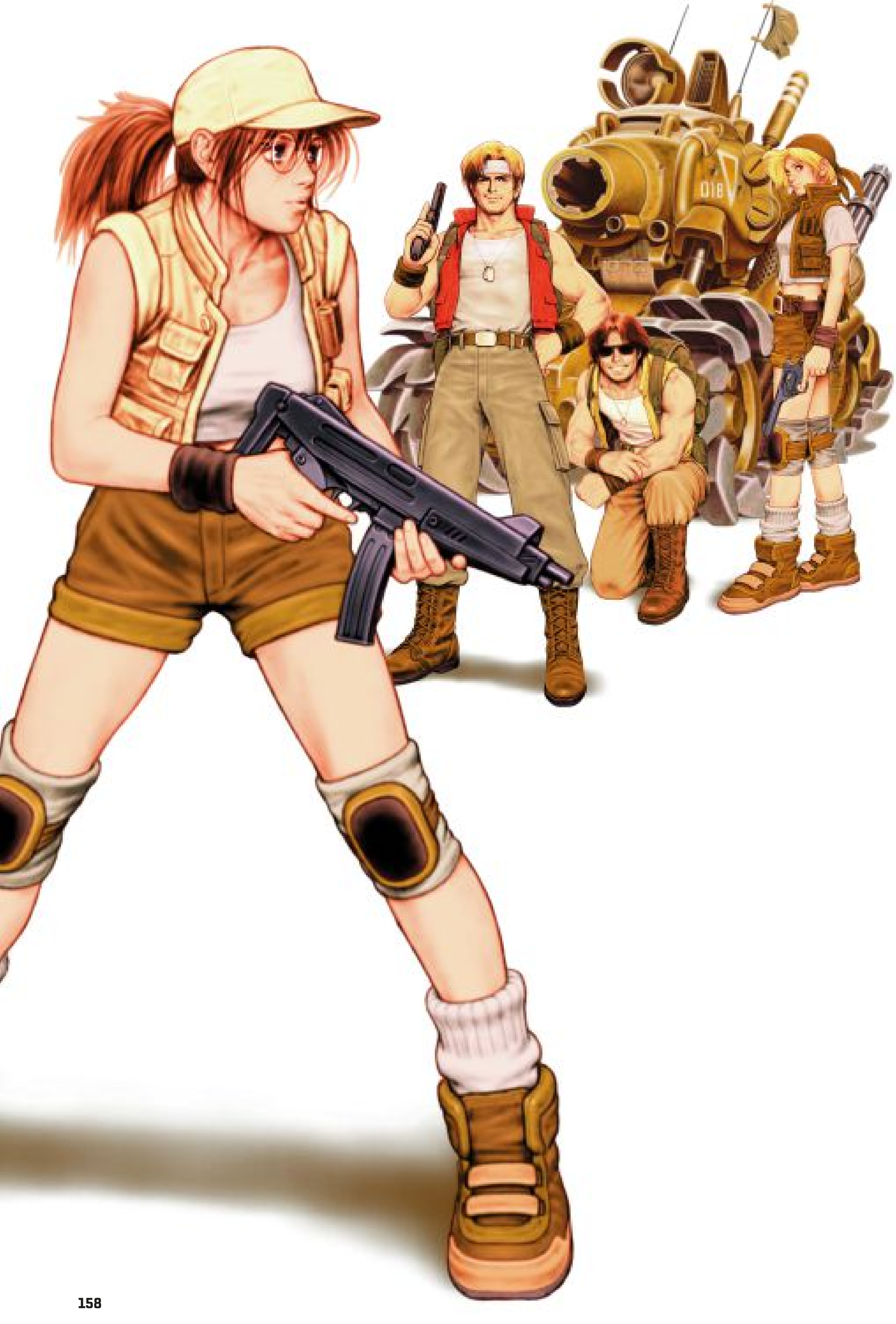


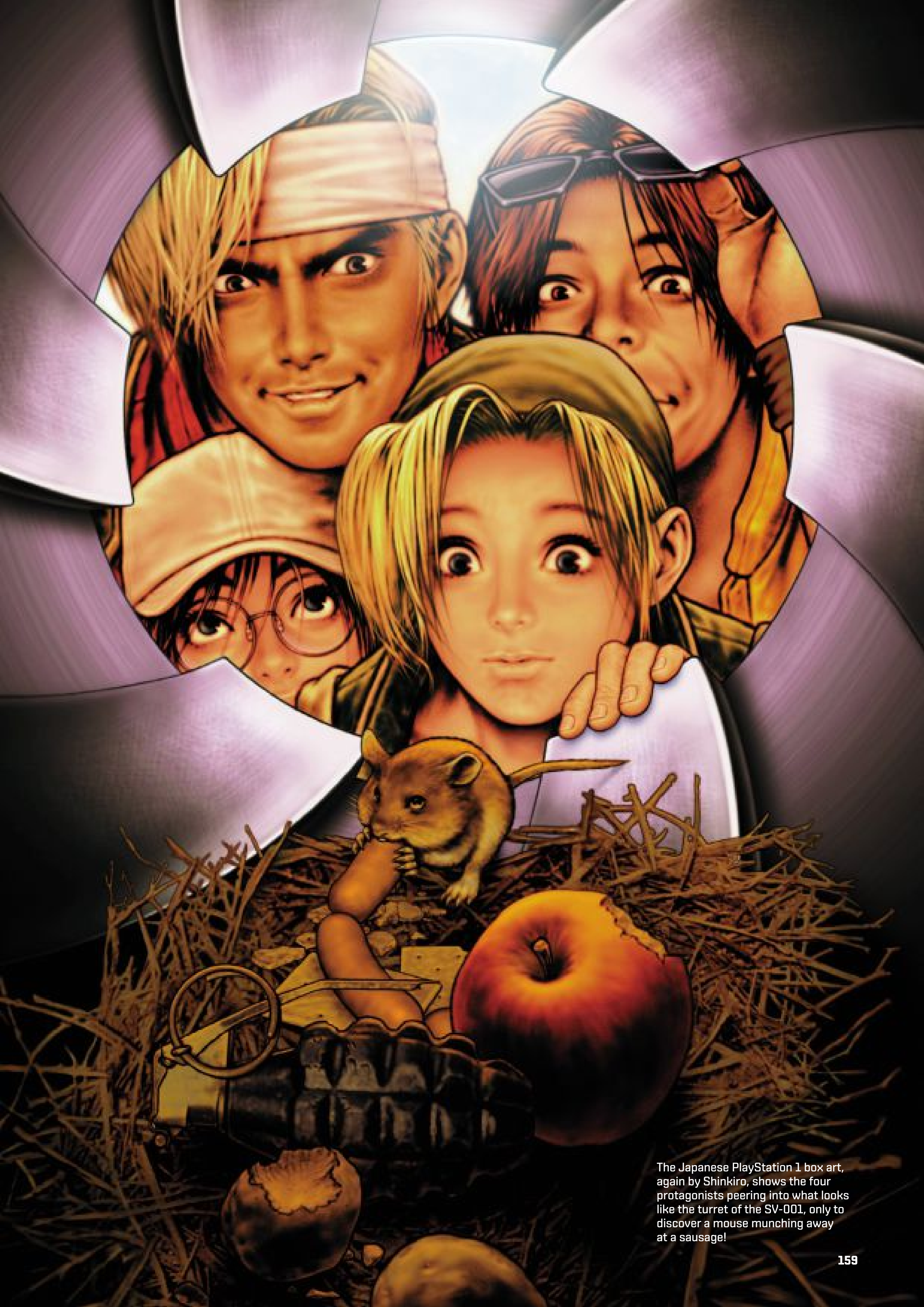



05
SVX-15D

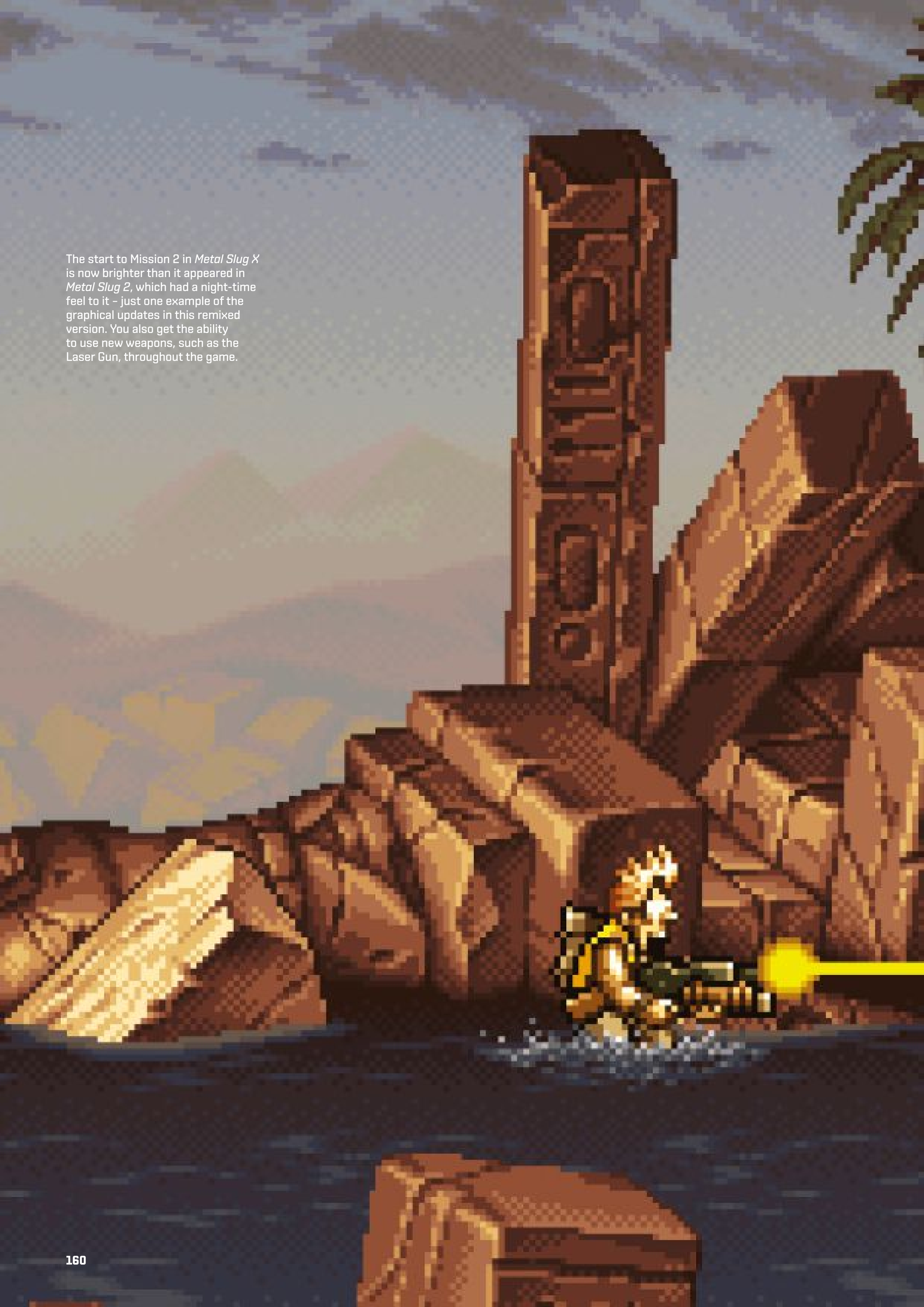


The game box art for *Metal Slug X* is the first time legendary artist Shinkiro worked on the series. He brings his own distinctive style to the character design. Fio is given centre stage in this art for the NEOGEO home versions.



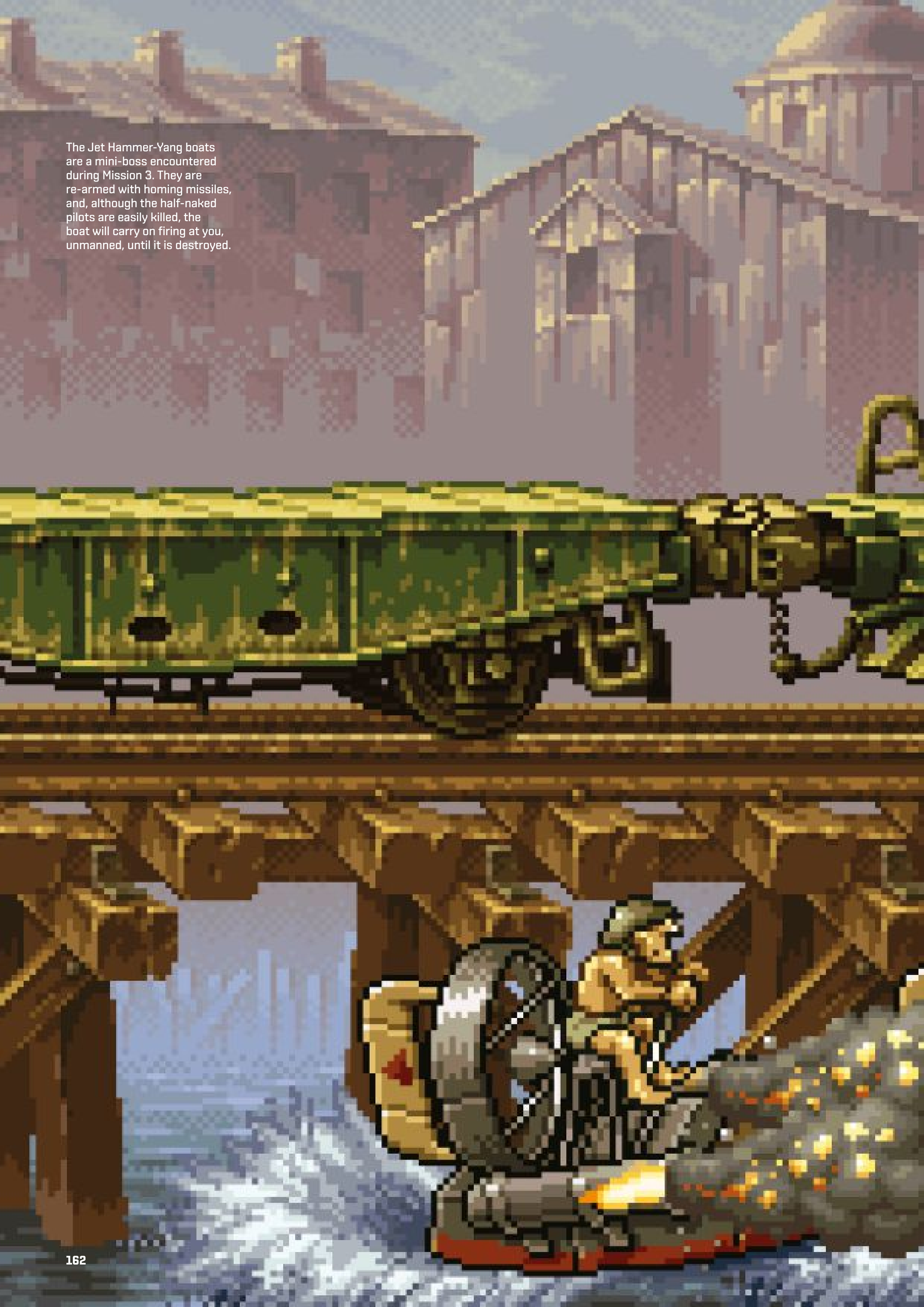


The Japanese PlayStation 1 box art, again by Shinkiro, shows the four protagonists peering into what looks like the turret of the SV-001, only to discover a mouse munching away at a sausage!



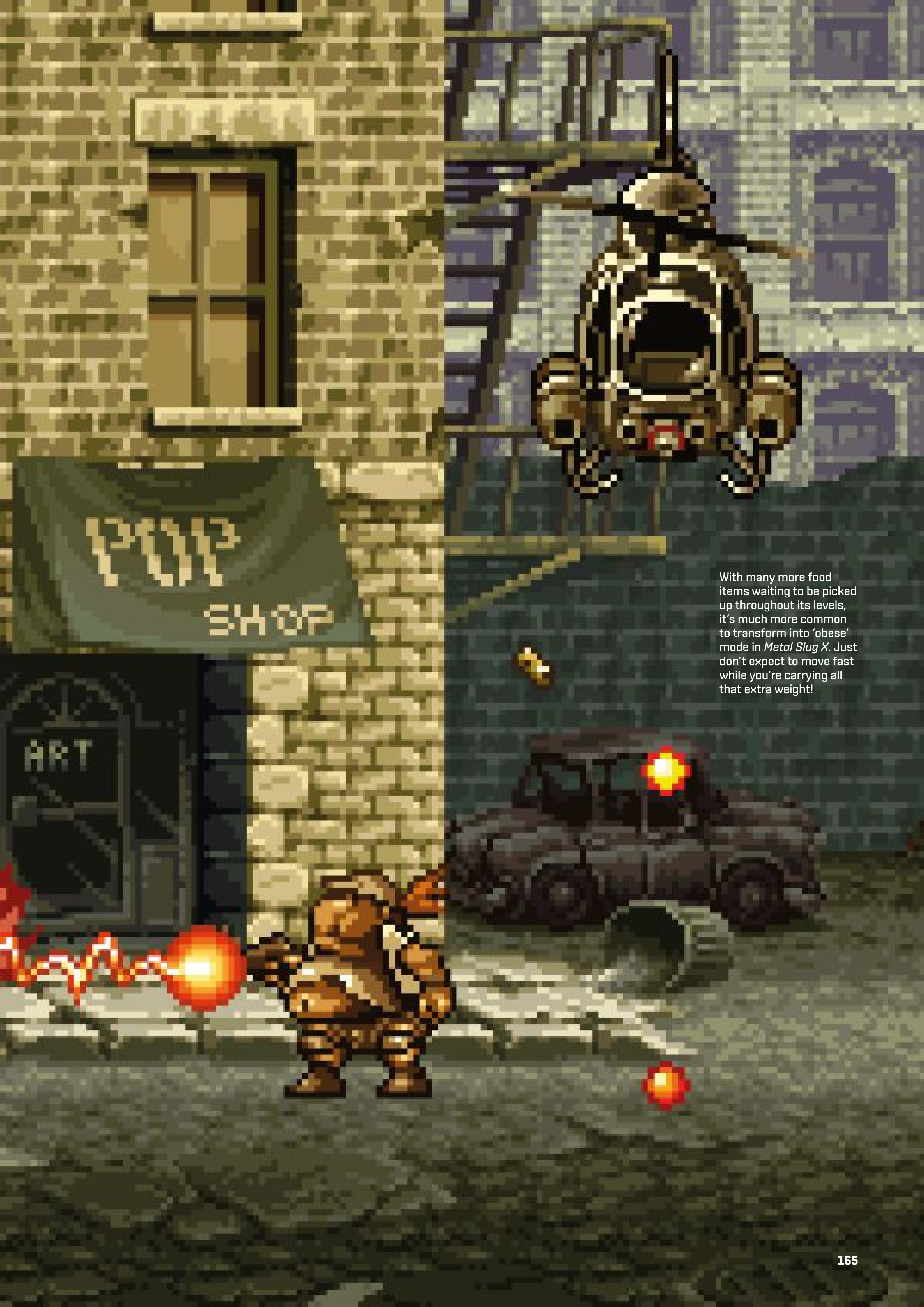
The start to Mission 2 in *Metal Slug X* is now brighter than it appeared in *Metal Slug 2*, which had a night-time feel to it – just one example of the graphical updates in this remixed version. You also get the ability to use new weapons, such as the Laser Gun, throughout the game.

NGER

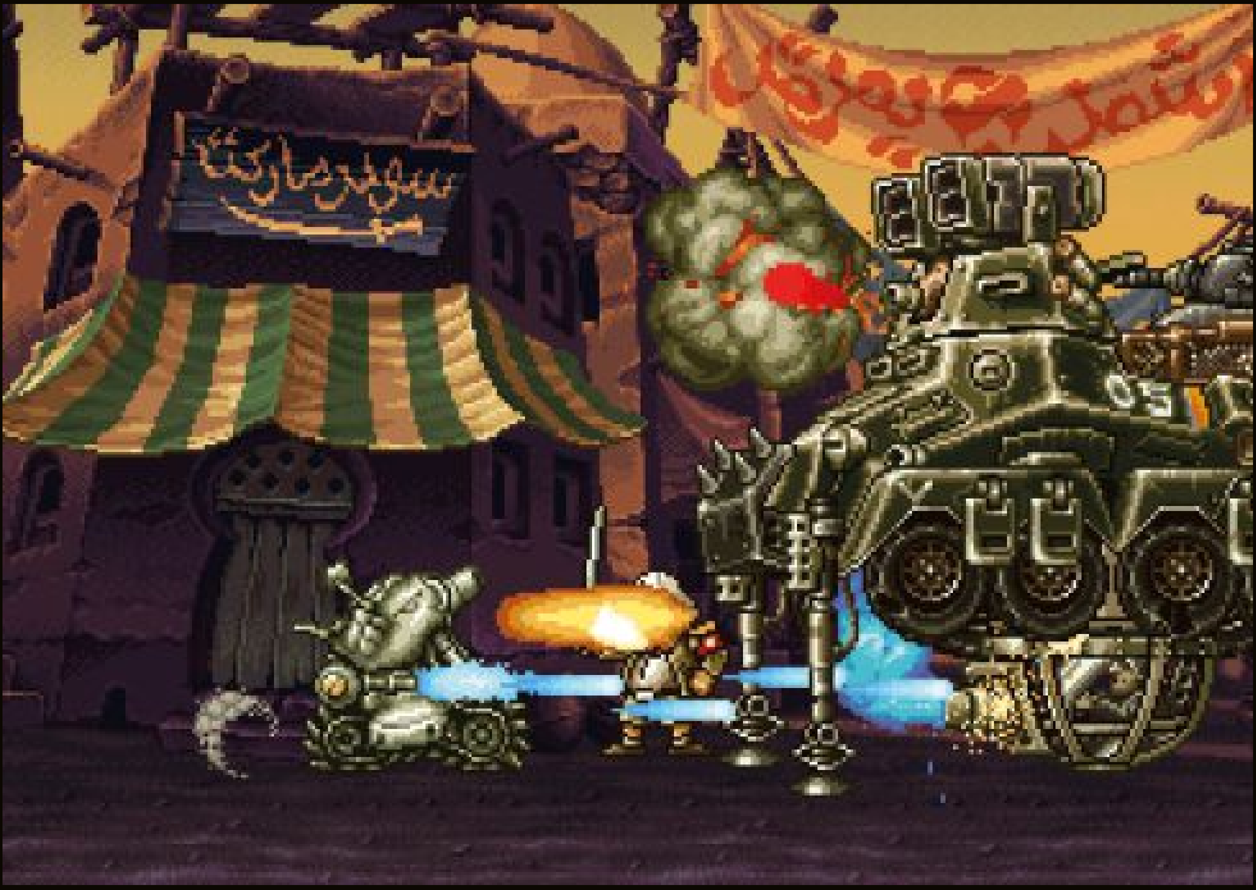


The Jet Hammer-Yang boats are a mini-boss encountered during Mission 3. They are re-armed with homing missiles, and, although the half-naked pilots are easily killed, the boat will carry on firing at you, unmanned, until it is destroyed.

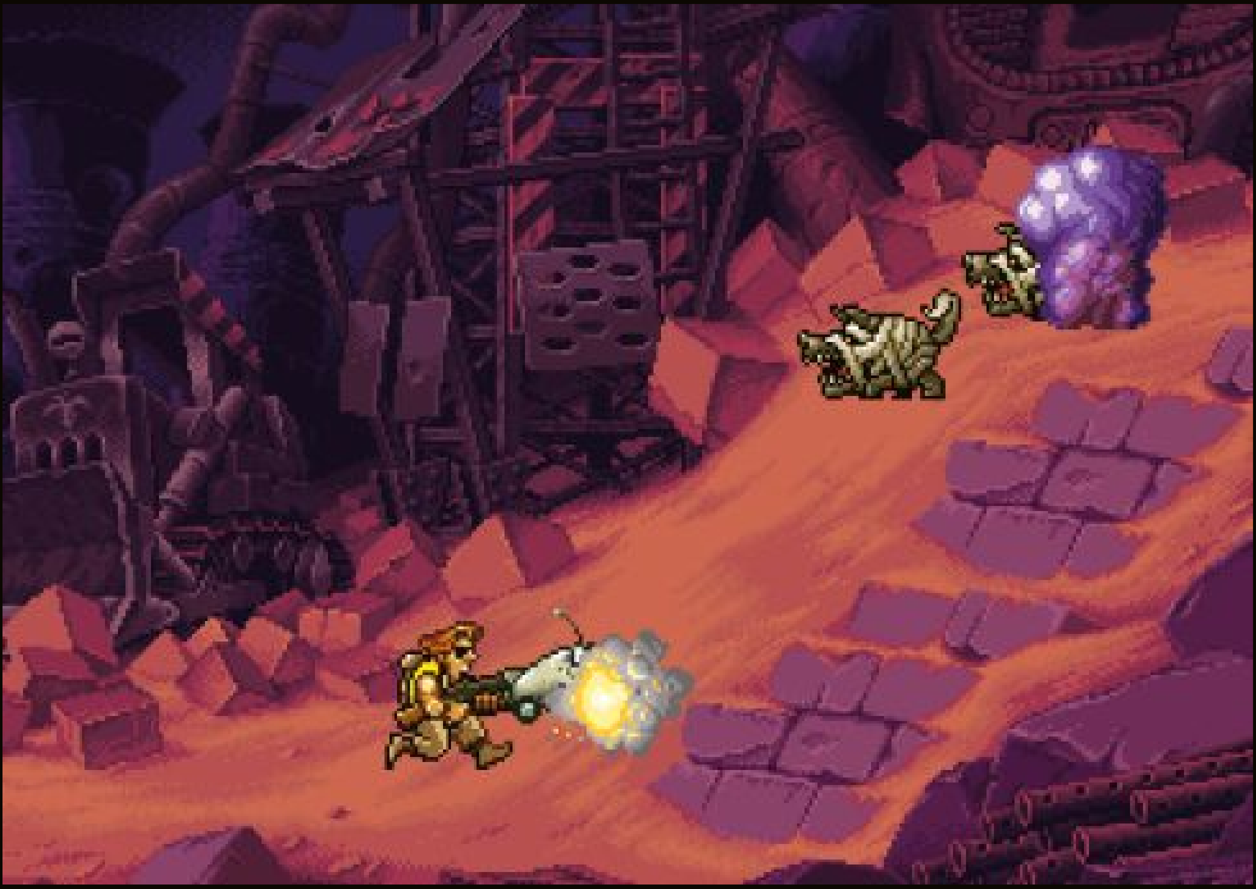
coffee



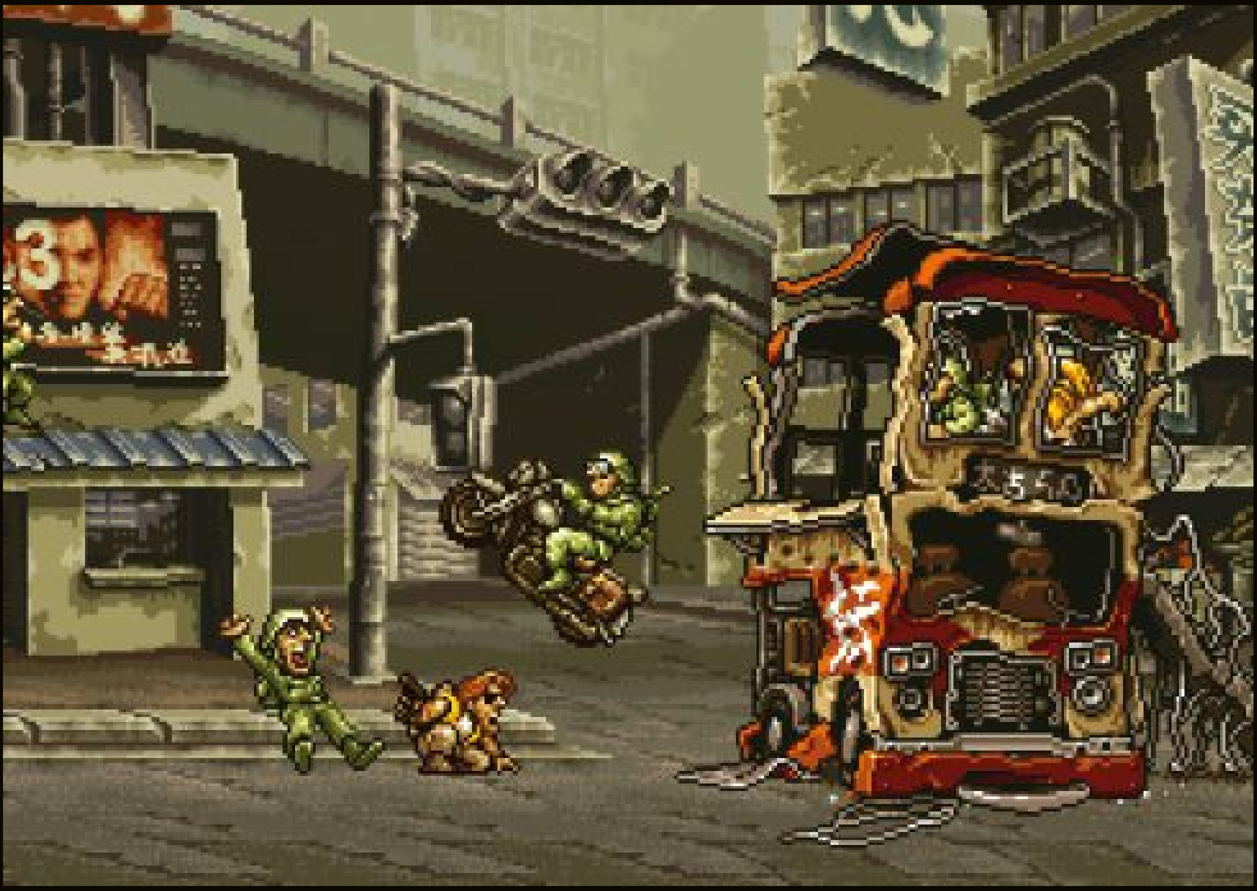
With many more food items waiting to be picked up throughout its levels, it's much more common to transform into 'obese' mode in *Metal Slug X*. Just don't expect to move fast while you're carrying all that extra weight!



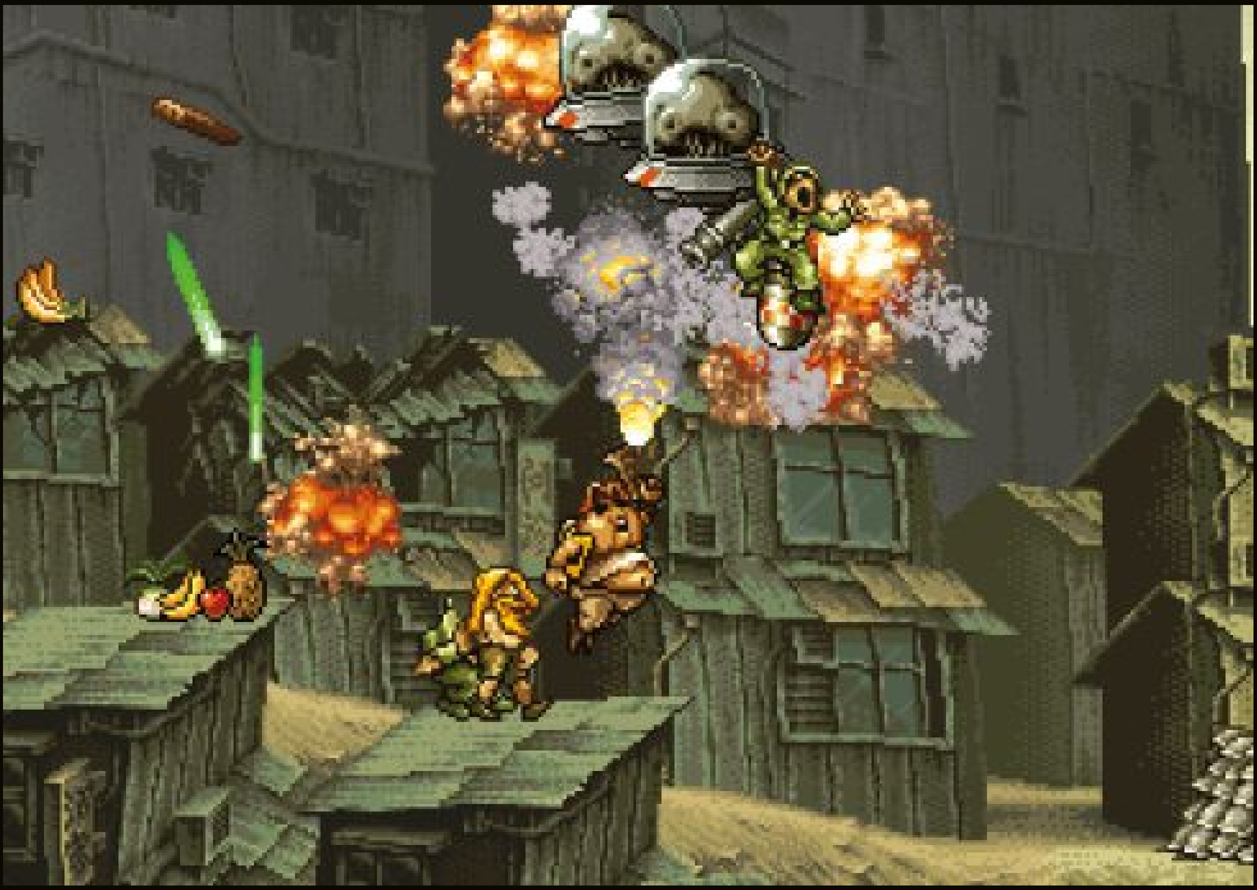
Iron Nokana debuted in the first *Metal Slug* as the boss of Mission 5. It reappears in *Metal Slug X* as the boss of Mission 1 – although, this time, it's green instead of red.



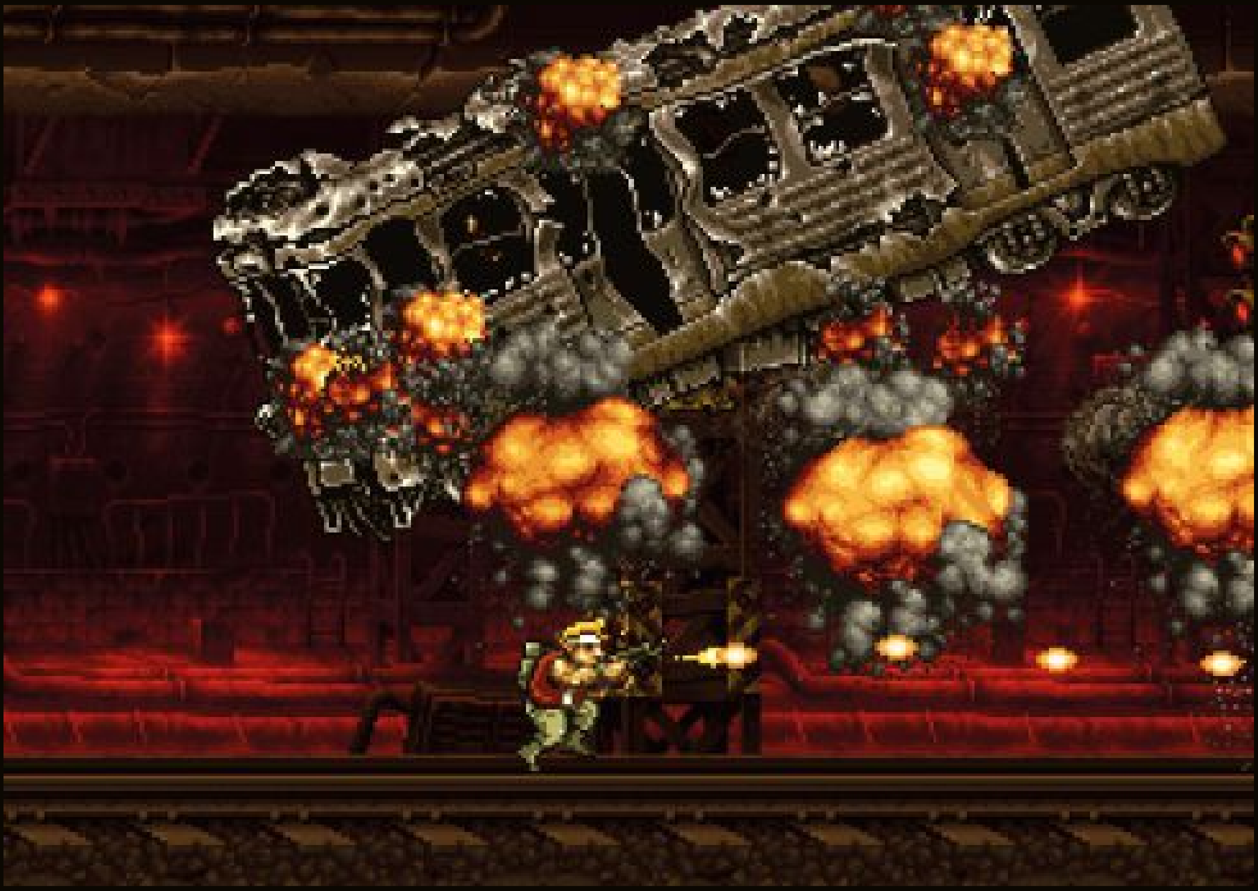
Beware of the Dog Mummies and their bark breath – these mummified canines are similar to regular mummies, but move much faster.



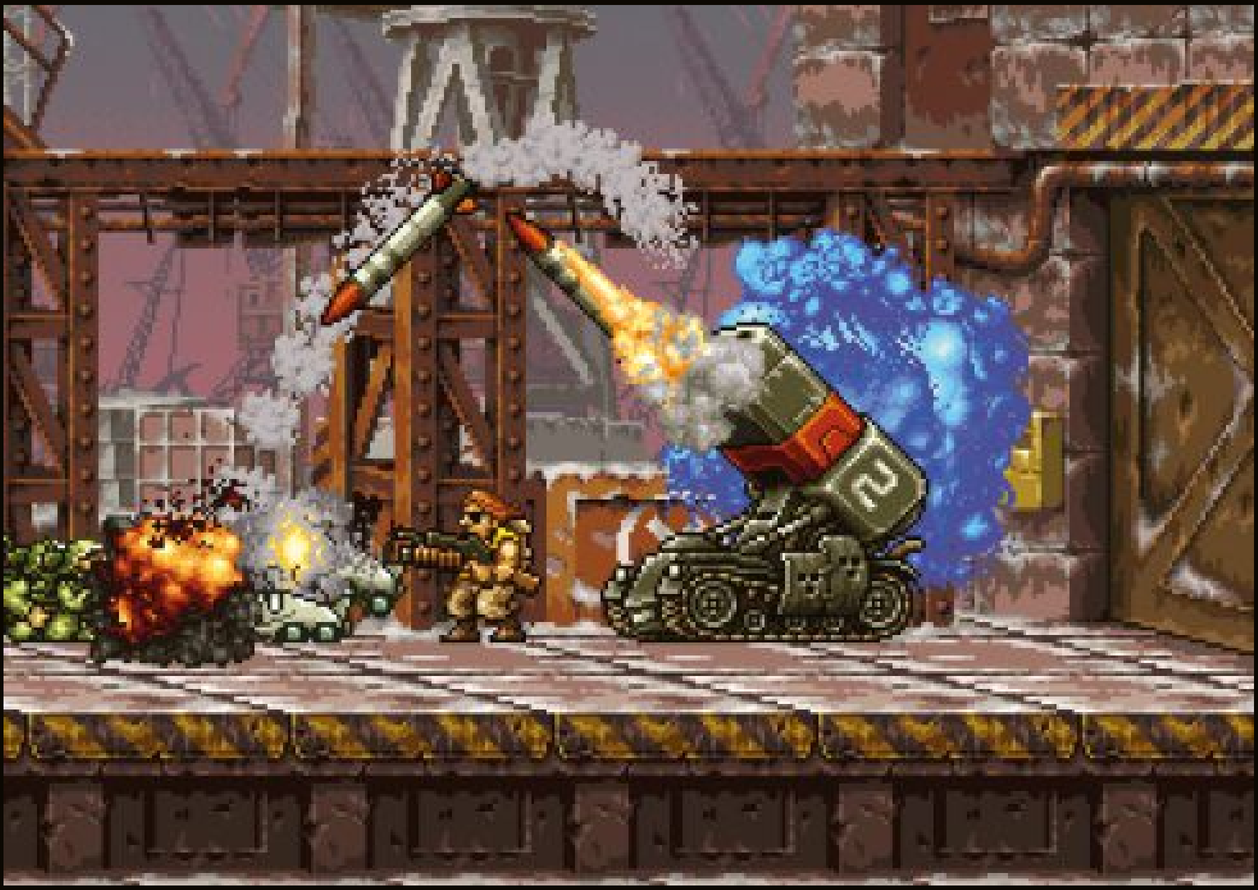
This Double-Decker bus roadblock must be destroyed in order to pass. The two Chinese characters on either side of the bus, once translated to the Japanese, say 'General Morden'.



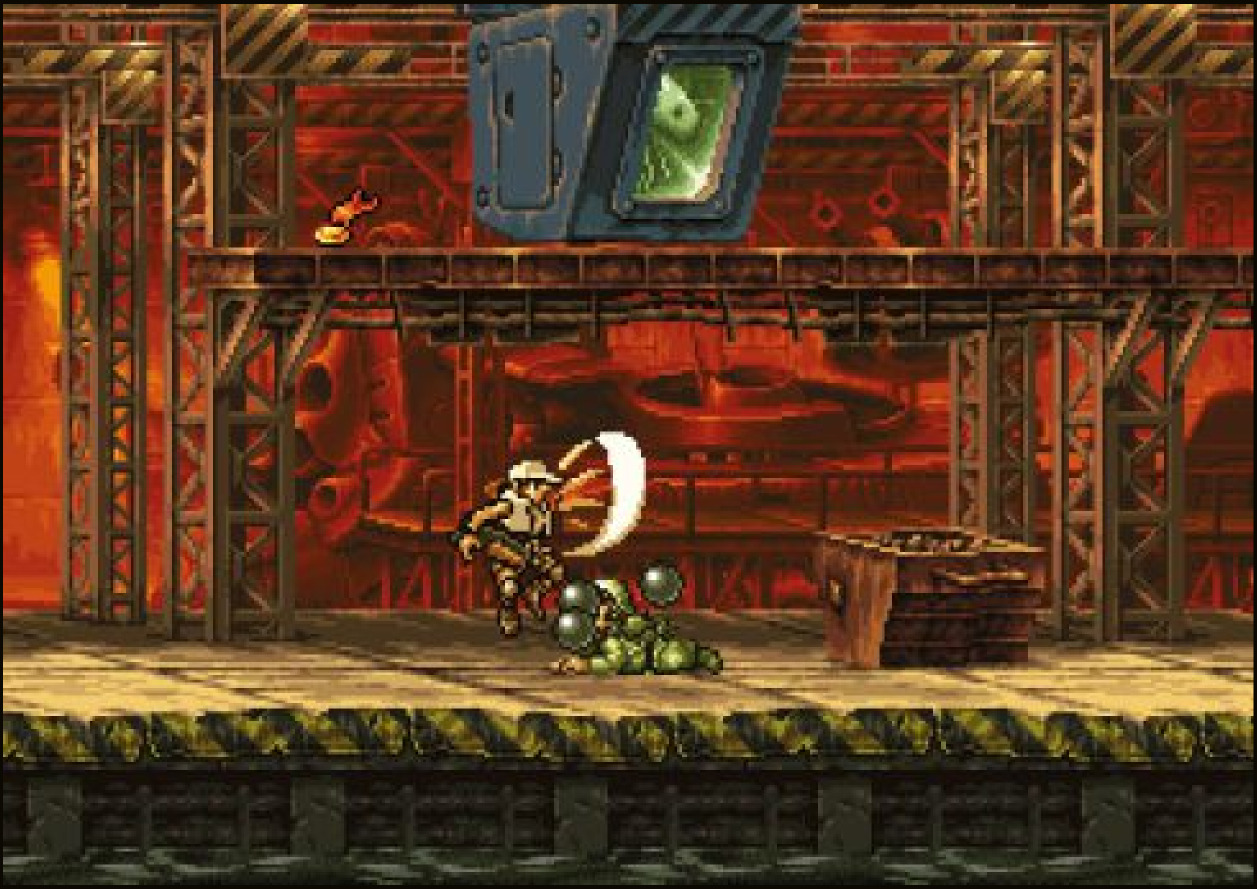
Eating too much food can transform you into an obese version of your character. Although you move slower, it increases your firepower. Humorously, the announcer notes the transformation with the words "Woah! Big!".



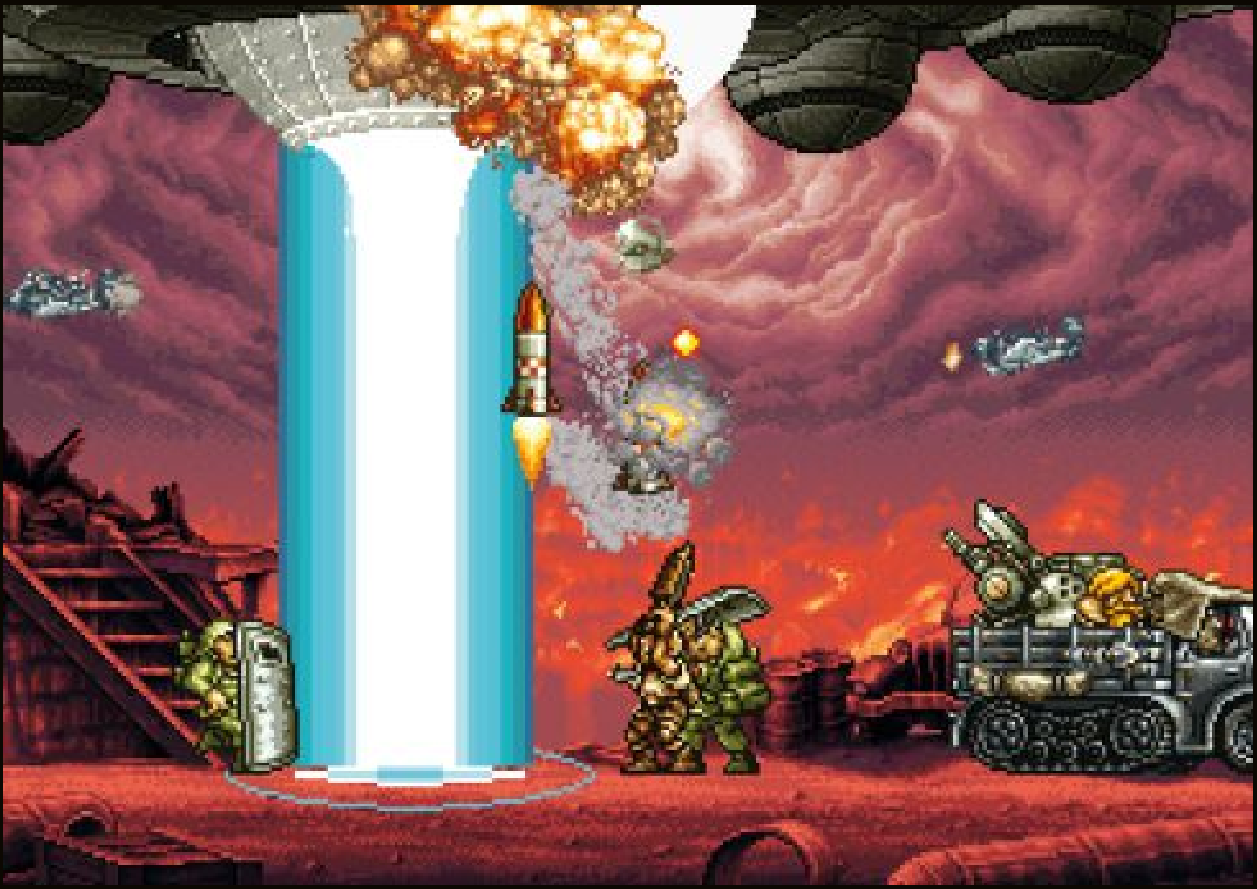
Blasting your way through an oncoming subway train causes it to dramatically explode and fly over your head. The design is based on the R32, a New York City Subway model.



The M-15A Bradley tank fires homing missiles relentlessly in your direction. The design is largely based in the TOS-1 – a Russian-made tank.

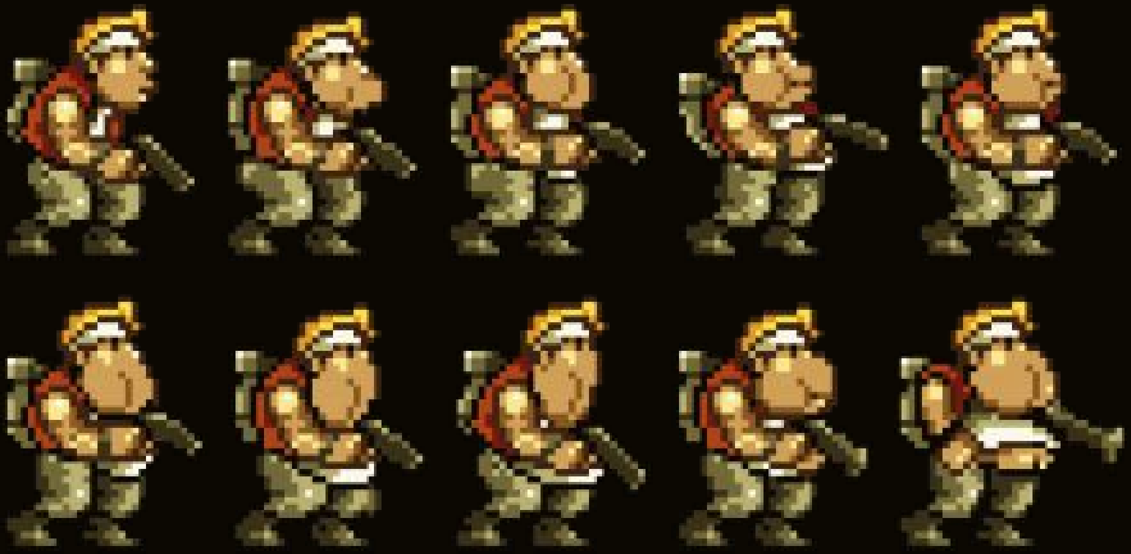


New to *Metal Slug X*, the Drop Shot is a secondary weapon that replaces your standard grenades. The grenades bounce and can be useful for taking out hiding enemies.

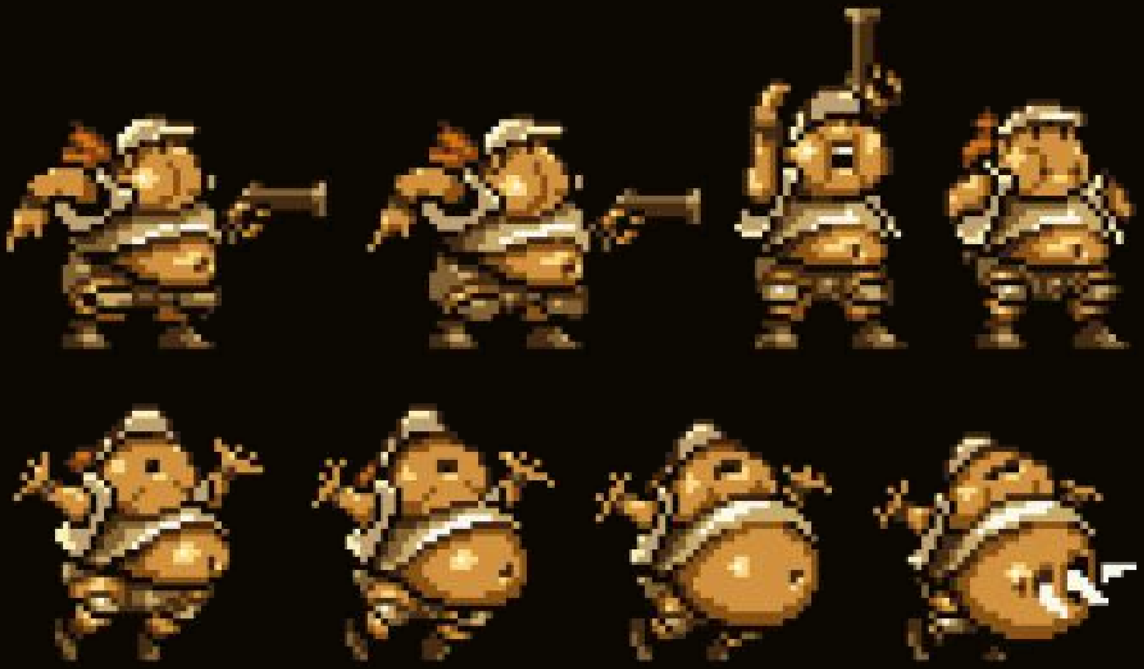


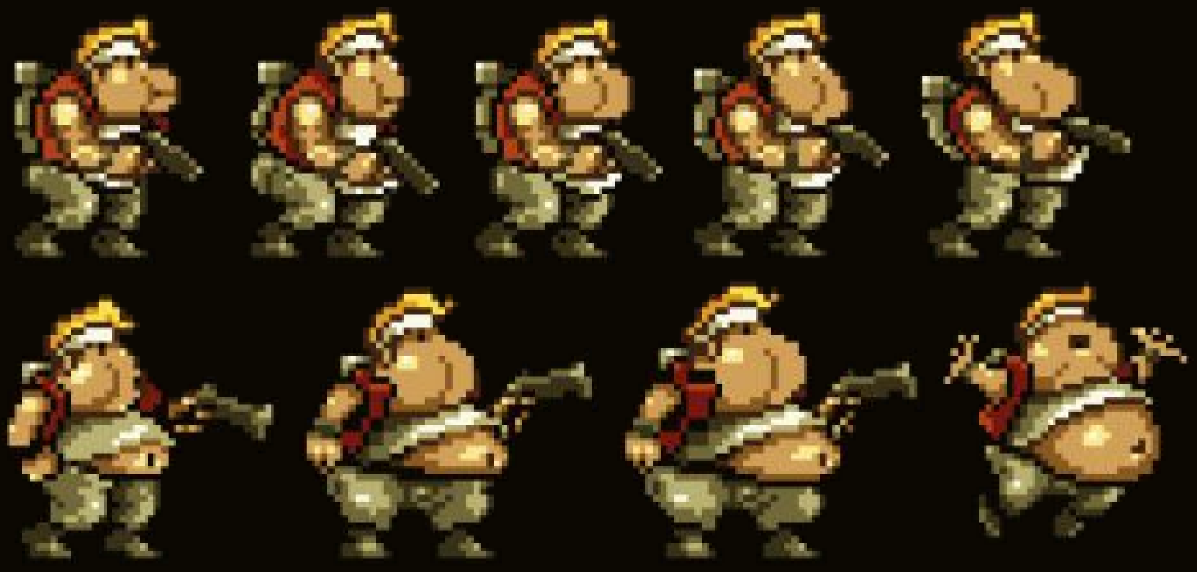
The final boss in *Metal Slug X* is an alien mothership called 'Rugname'. Its huge laser cannon is only fired vertically, so it can easily be avoided. Apparently this scene was inspired by the Hollywood movie *Independence Day*.

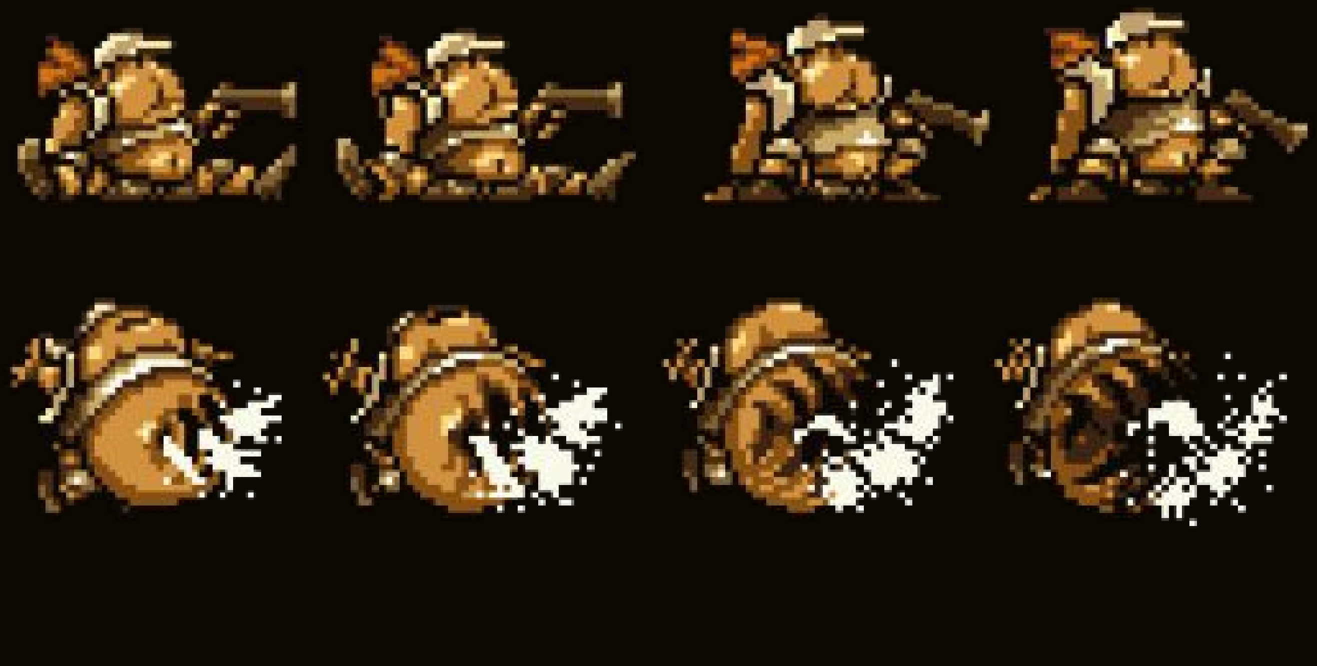
Various sprites showing the obese transformation, caused by eating 16 or more items of food. This will wear off over time, or it can be removed by picking up a keg of diet powder.



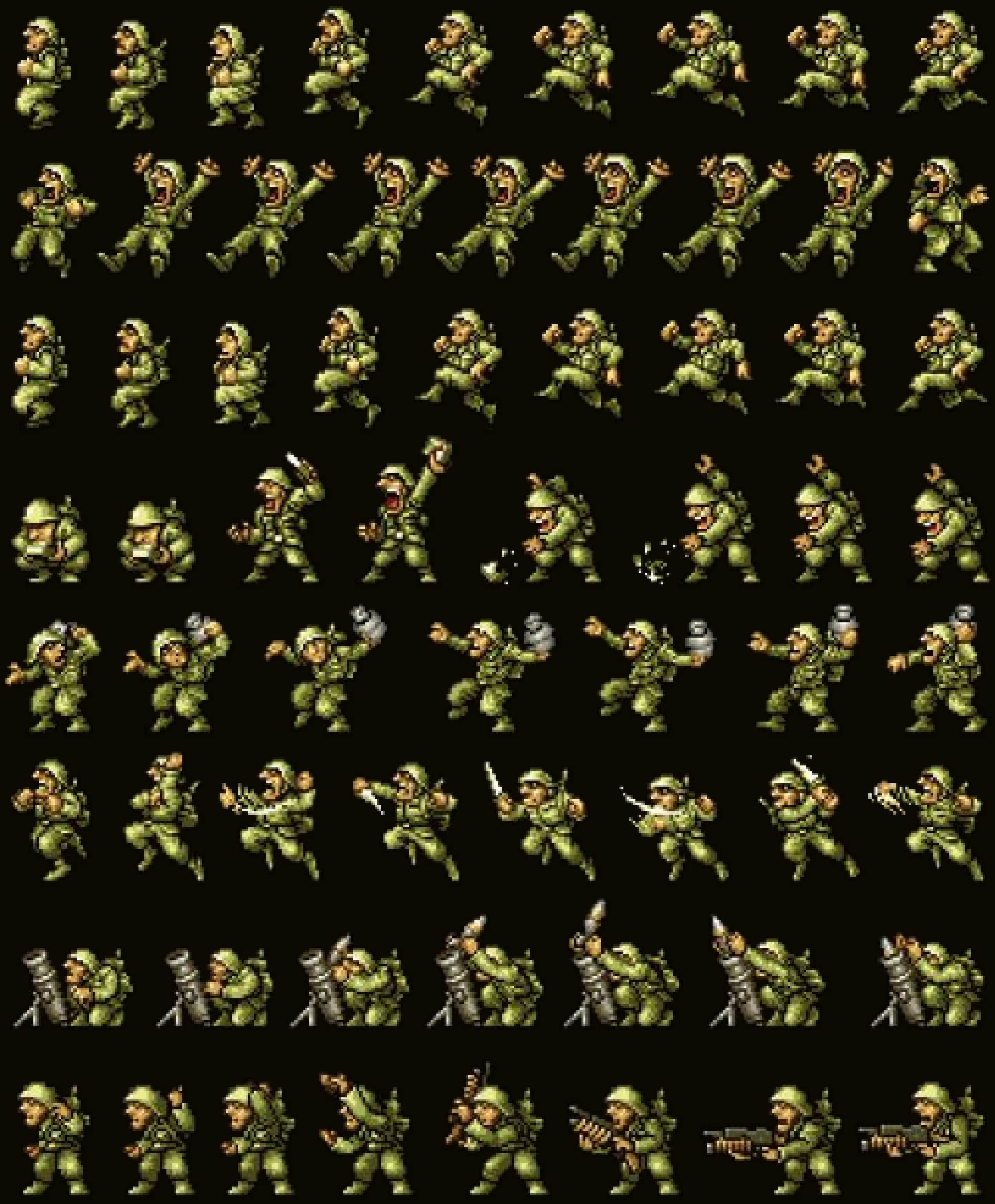
While obese, your movements are slowed, but your weapons are more powerful and change appearance with a comical twist. Taking too many hits may result in you popping like a balloon!



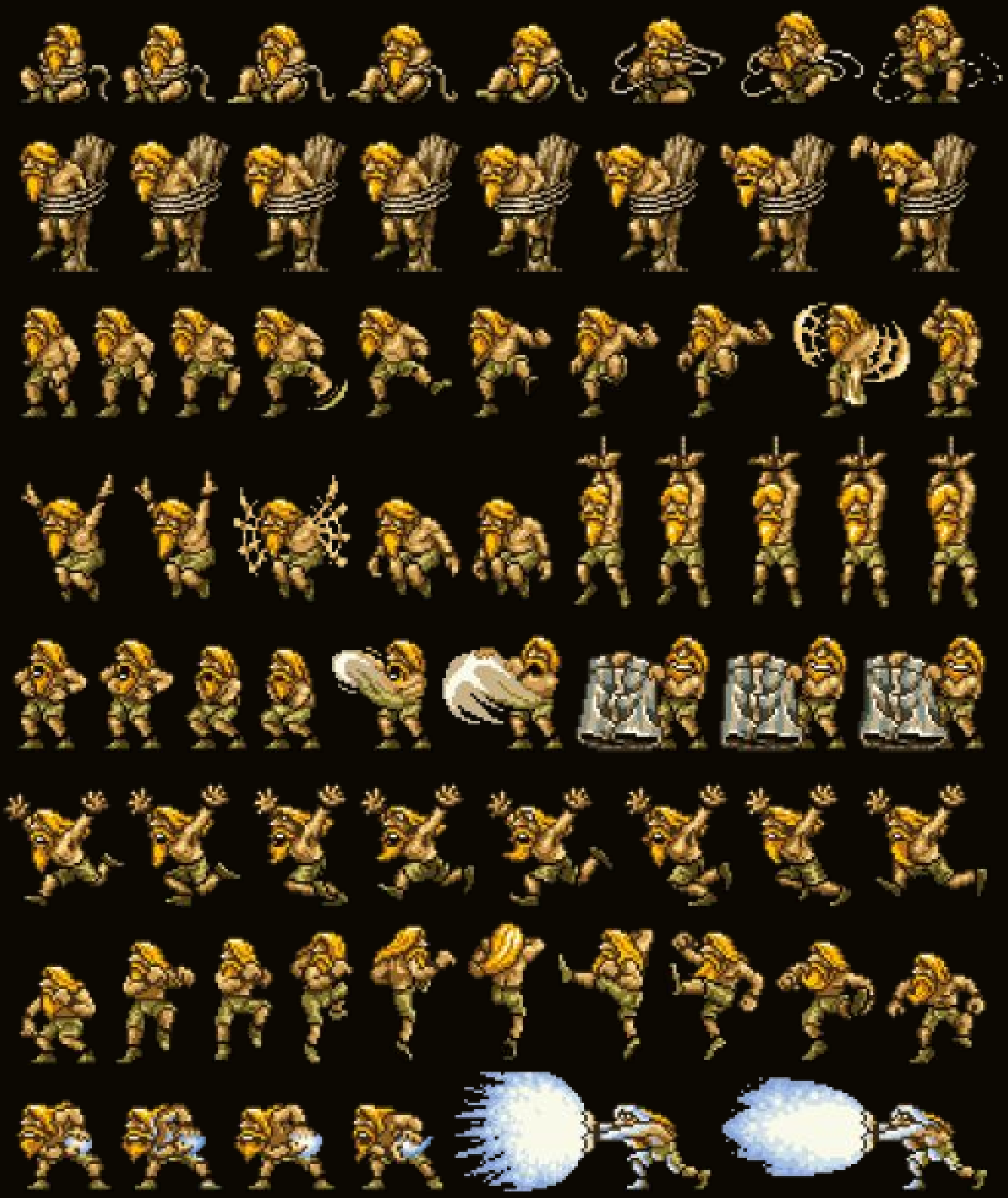




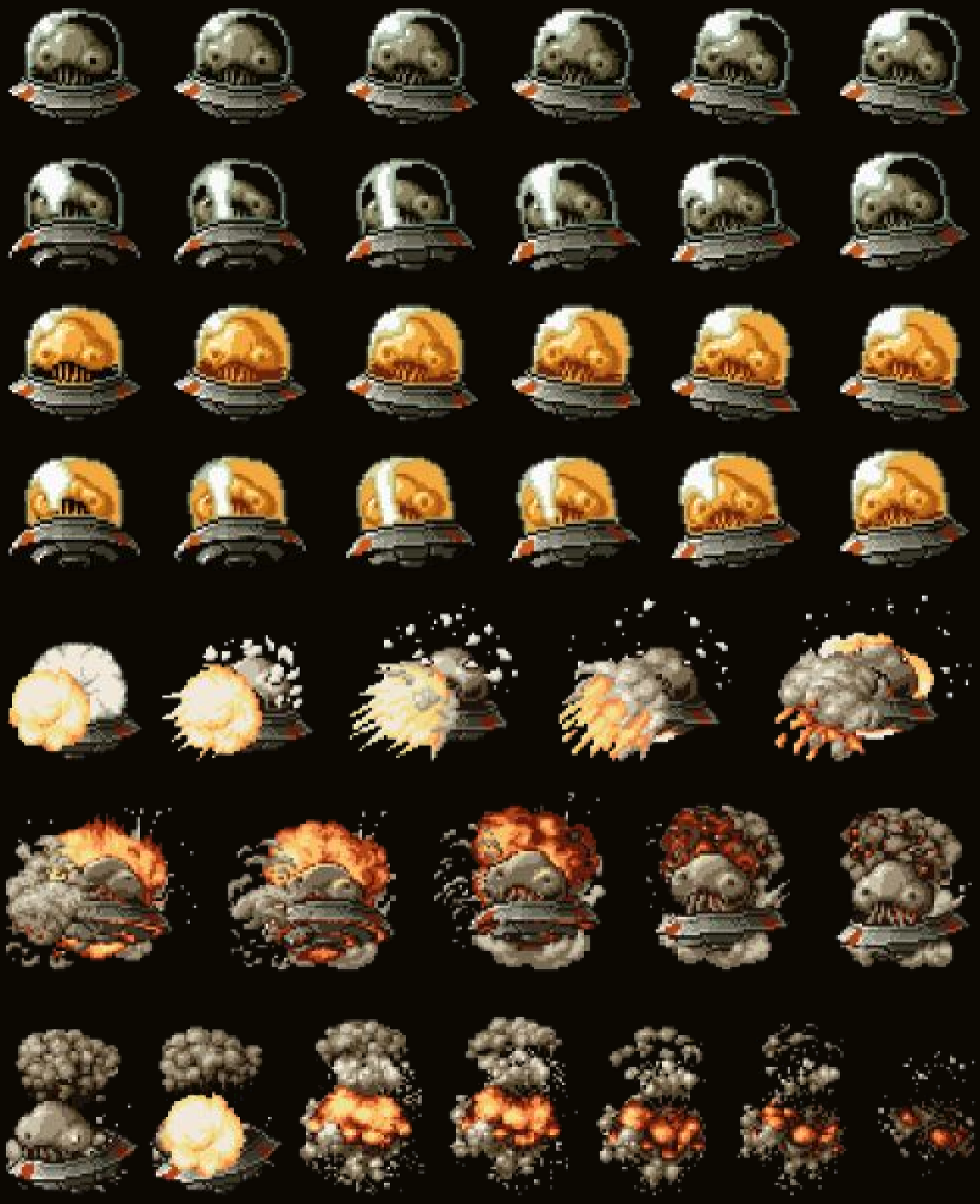
These Rebel Soldier sprites show that it wasn't just the playable characters that were beautifully drawn and animated – all the enemies and NPCs throughout the Metal Slug series were given the same impressive level of craft and design.

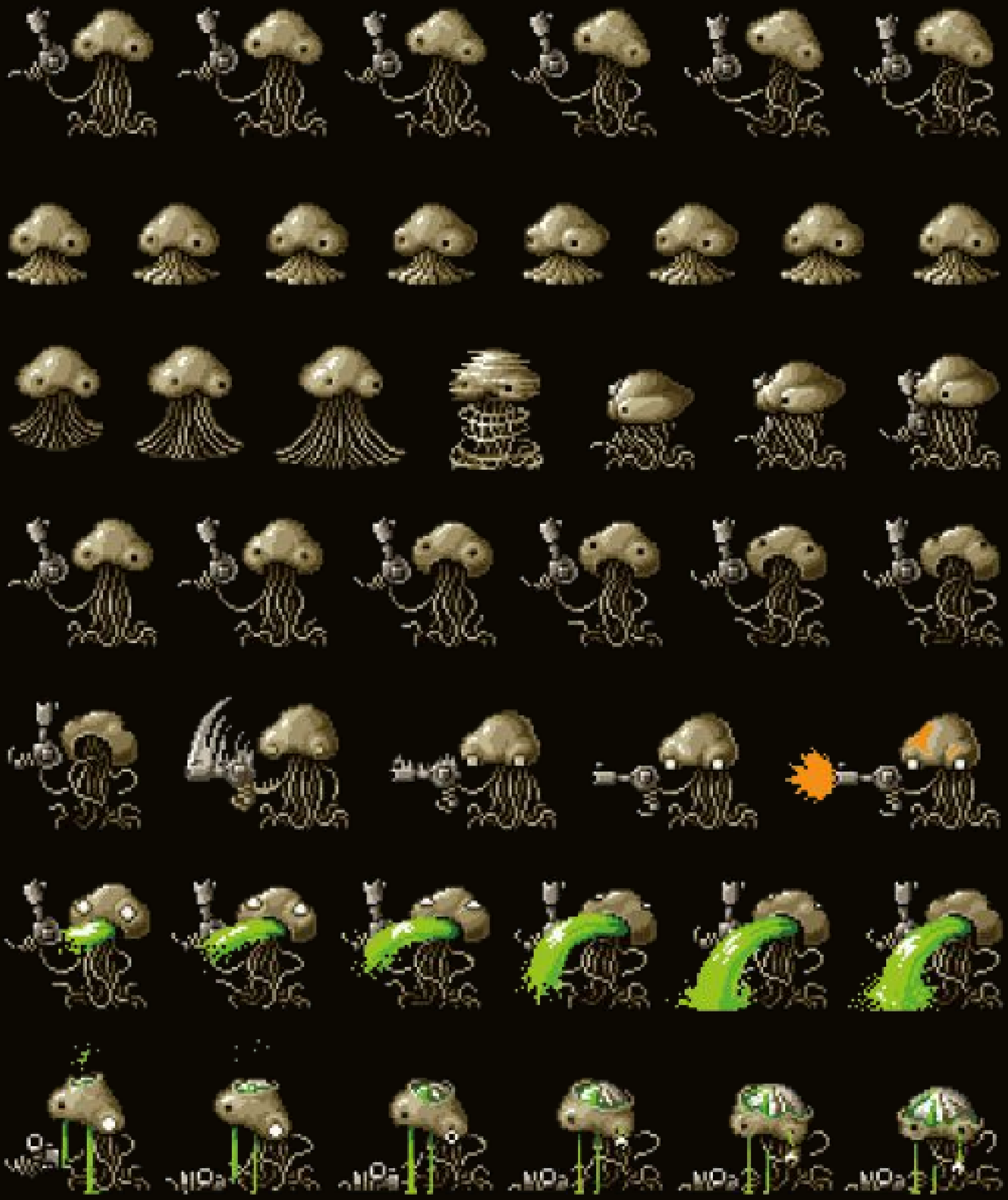


This is a selection of various POW sprites. The bottom two rows are of a character called Hyakutaro Ichimonji, who is, in fact, a POW in disguise; when rescued, he helps you by attacking the enemies with moves clearly inspired from another iconic arcade gaming franchise!



A selection of sprites for the Mars People. Their tentacles are able to hold a spore pistol and also enable them to jump. When killed, the Mars People shed green blood. Their design is loosely based on the protagonists described in H.G. Wells' seminal classic, *The War of the Worlds*.





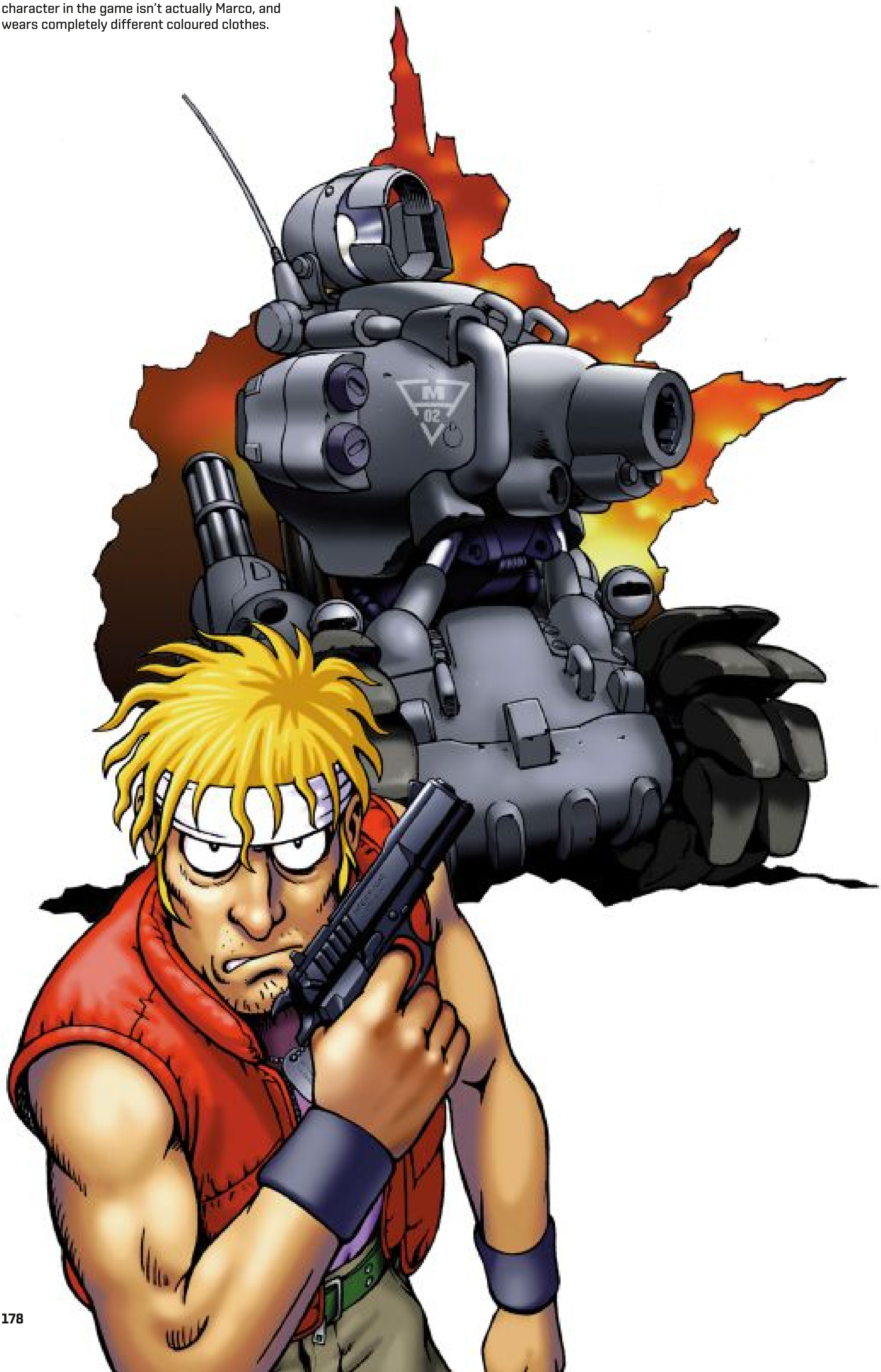
First released: 1999 / Players: 1 / Developed by: Ukiyotei / Published by: SNK

METAL SLUG
1ST MISSION
TM

NGPC

When SNK launched the NEOGEO Pocket handheld console in 1998, it was a given that it would bring its most beloved and treasured franchises to the system. Metal Slug, although still quite a young series when compared with the likes of *Fatal Fury* and *Samurai Shodown*, was an obvious candidate for miniaturisation, and would arrive on the portable in 1999, the same year that SNK released a revised 'Color' variant of the machine to fight against the Nintendo Game Boy Color and Bandai WonderSwan. Coded by Ukiyotei Company, *Metal Slug 1st Mission* naturally looked simpler when compared with the NEOGEO AES editions, but it retained the fast, addictive gameplay.

The cover art for *Metal Slug 1st Mission* clearly shows Marco with his trademark white bandana and red jacket, but the main character in the game isn't actually Marco, and wears completely different coloured clothes.



Concept illustration of a POW taking a bath in an oil barrel – something that doesn't actually appear in the game.

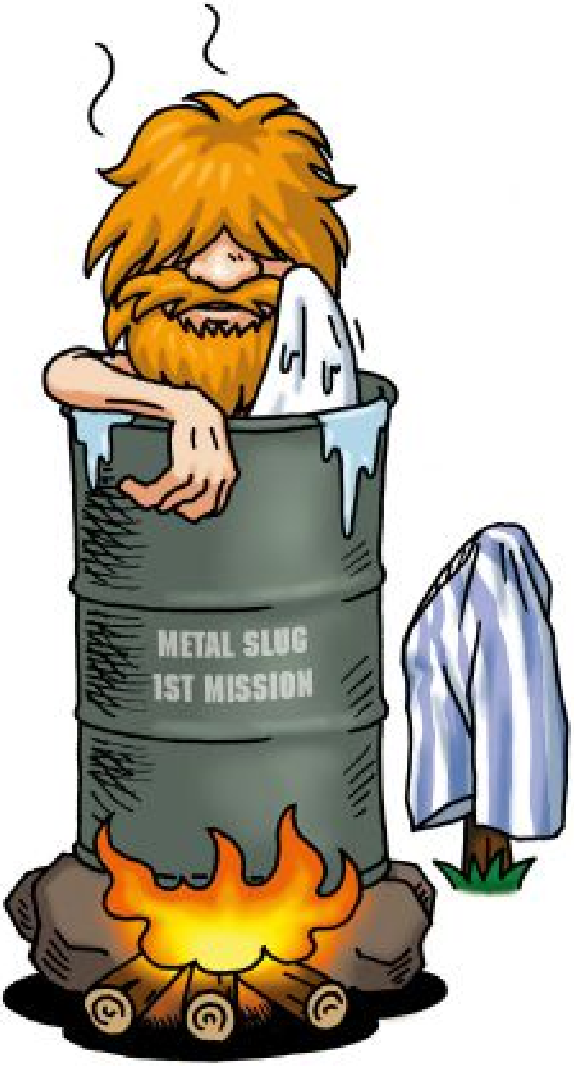
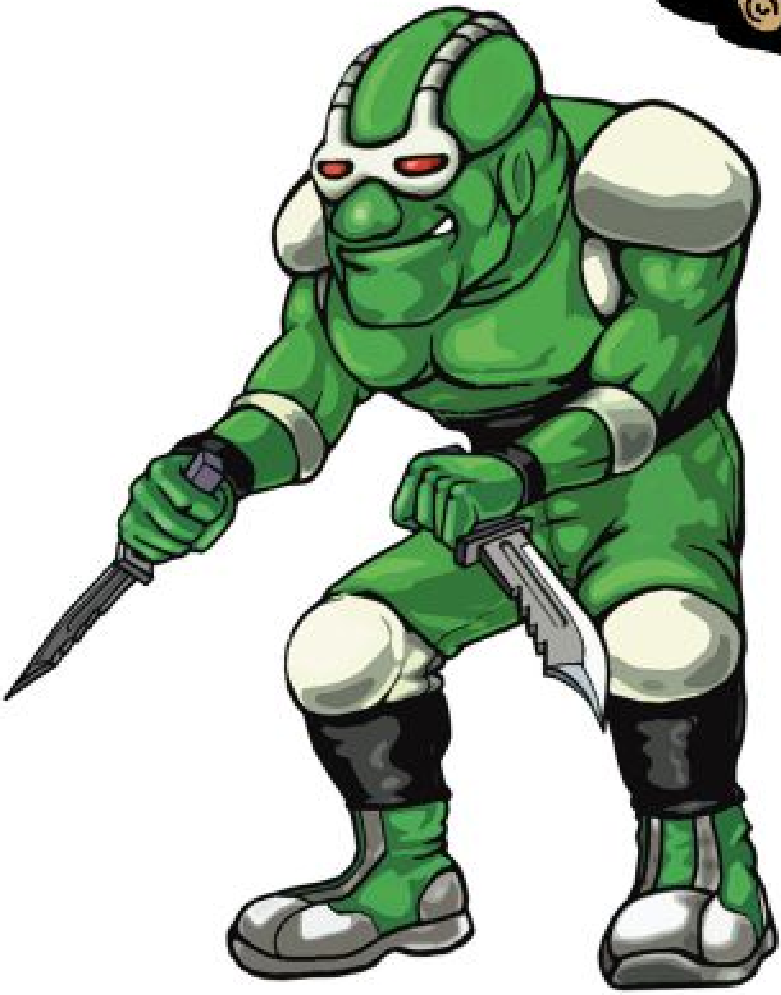
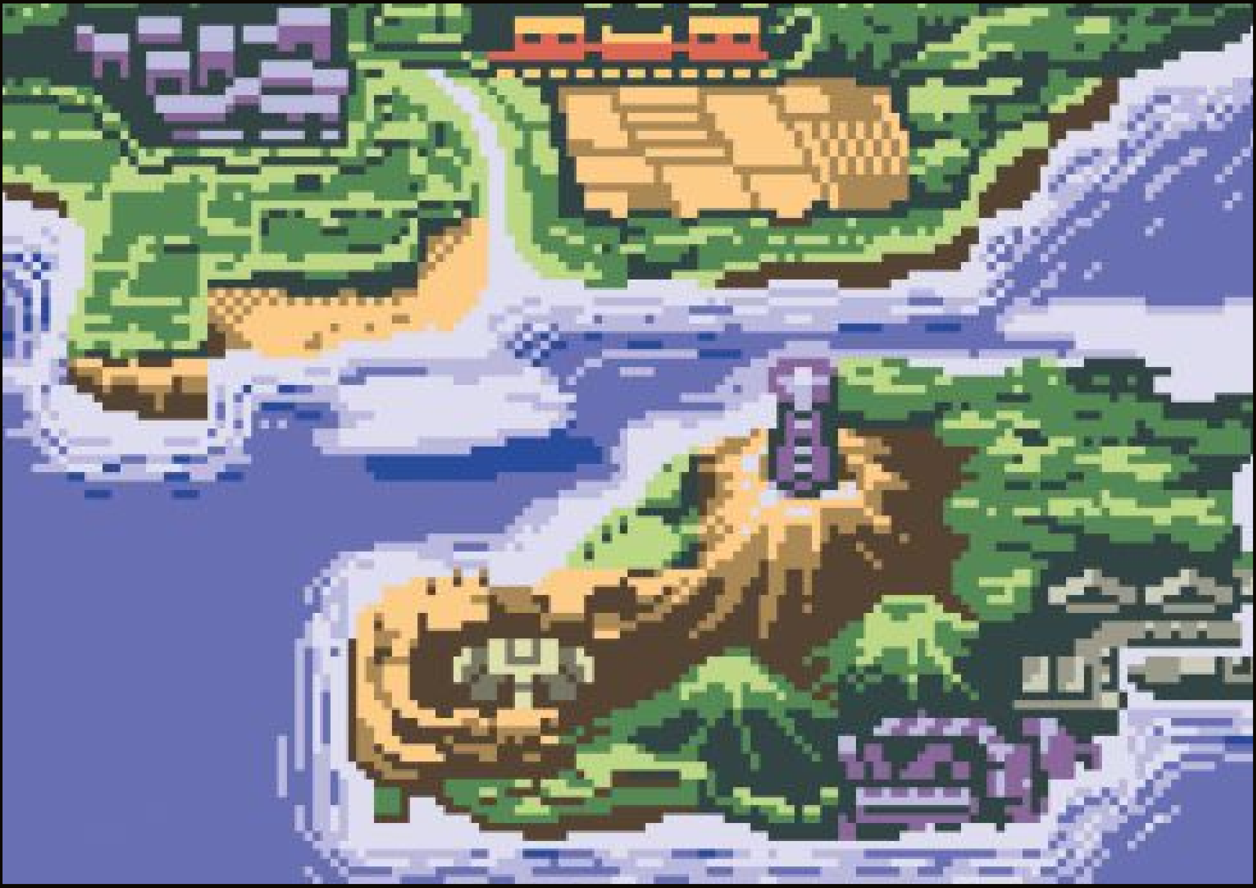
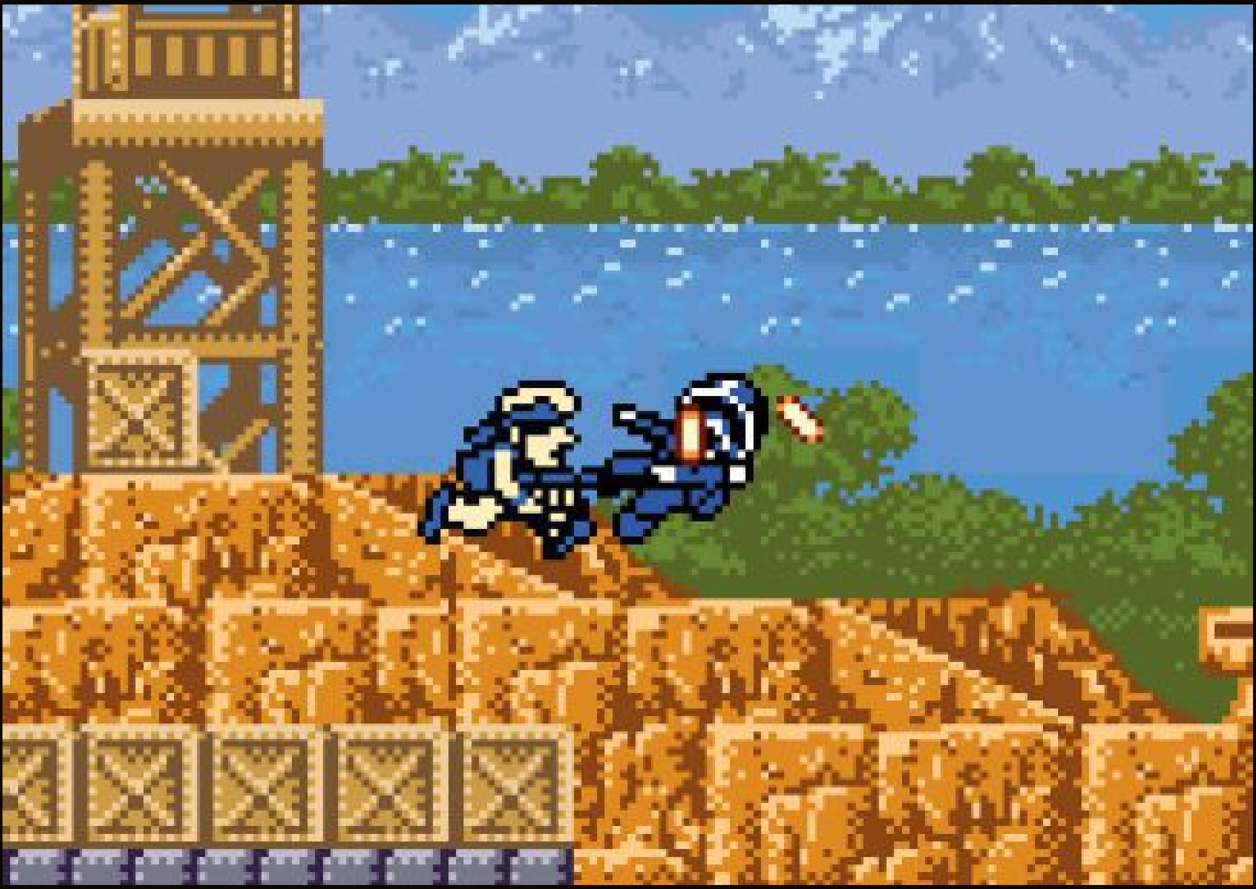


Illustration of Lieutenant Colonel Macba, who appears throughout the Metal Slug Pocket Color games as a sub-boss. All battles with Macba take place in single-screen rooms and involve dodging his frenzied knife attacks.

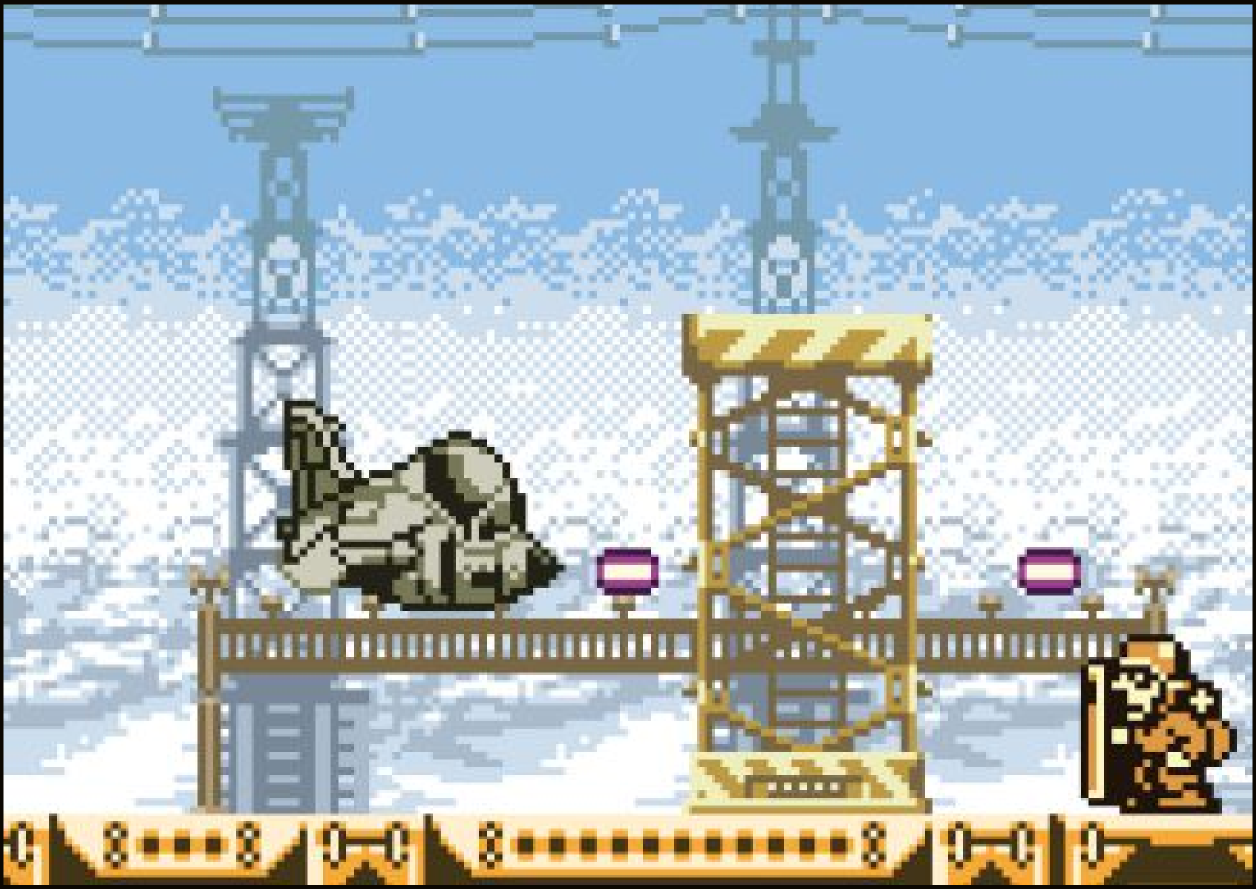




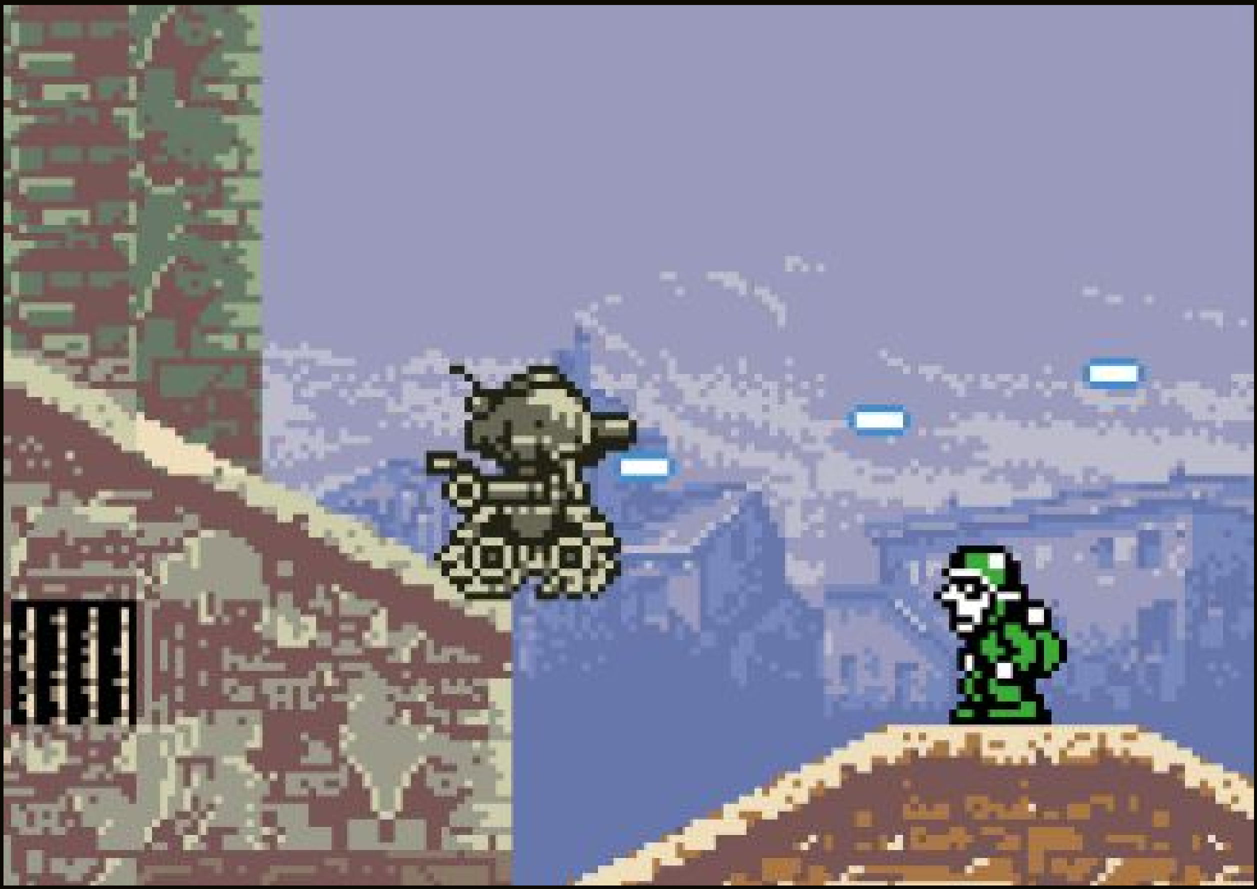
A unique feature of the Metal Slug NEOGEO Pocket Color games is that they include a map showing the various areas, which appears at the start of each mission.



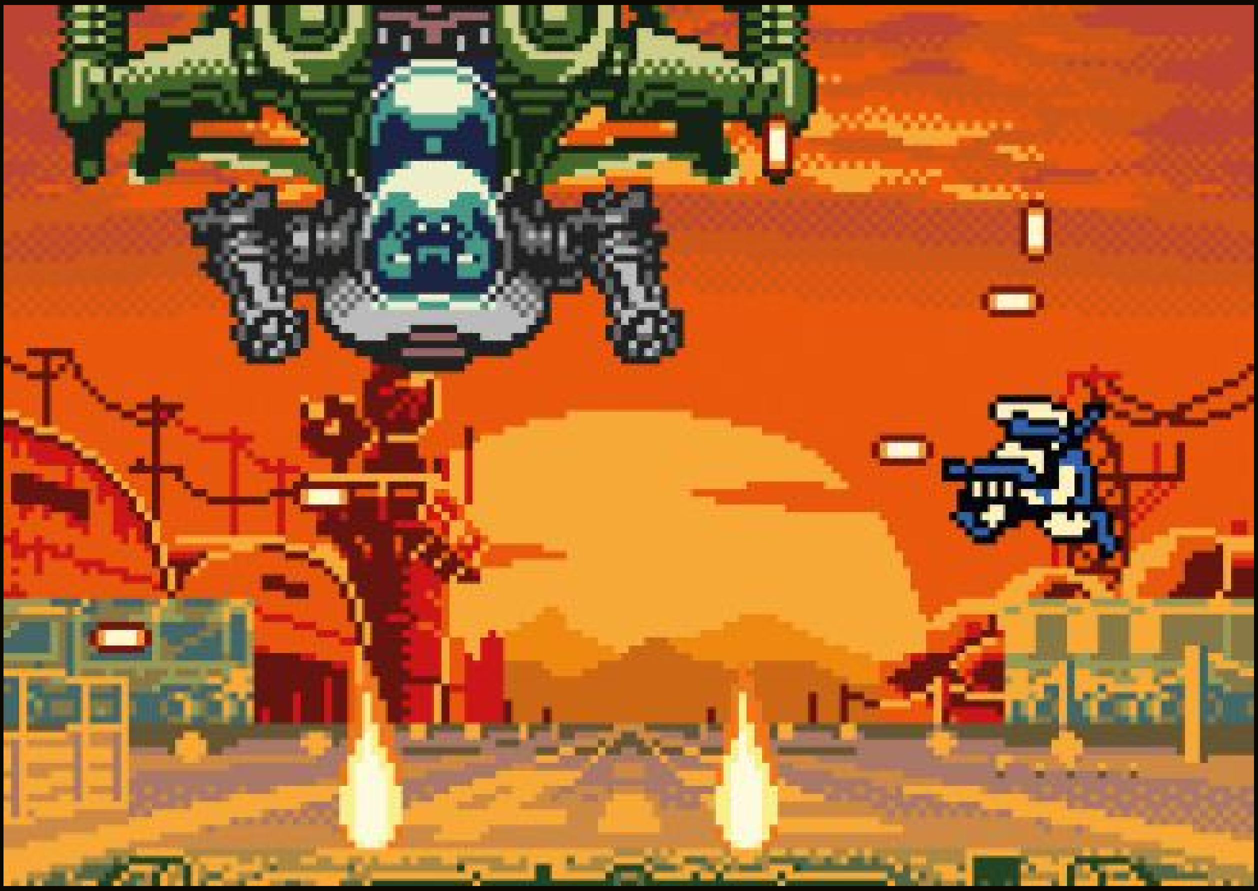
The NEOGEO Pocket Color does a great job of recreating the look and feel of Metal Slug, even though the lack of enemies on screen is really noticeable.



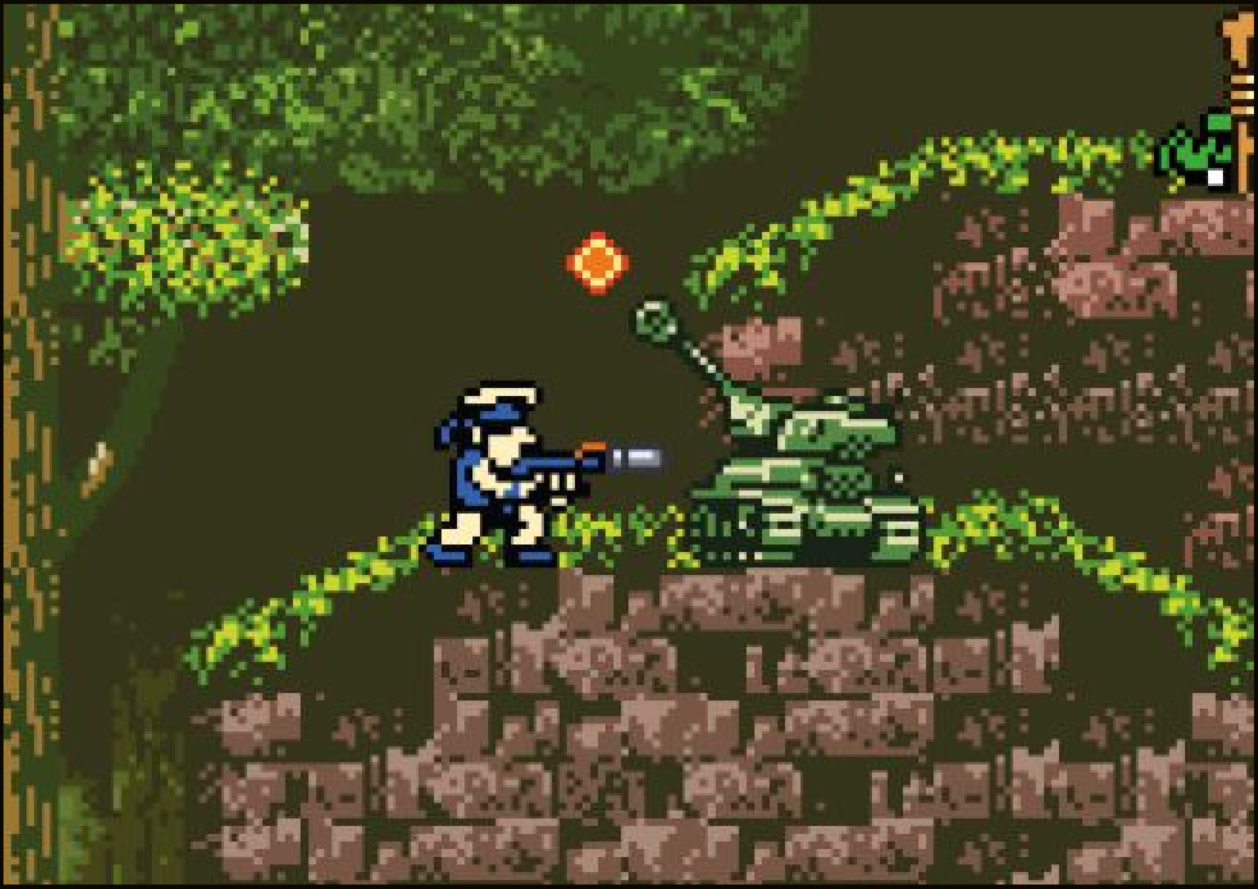
First seen in *Metal Slug 2*, the Slug Flyer is one of two playable vehicles present in *Metal Slug 1st Mission* – albeit with stripped-back firepower.



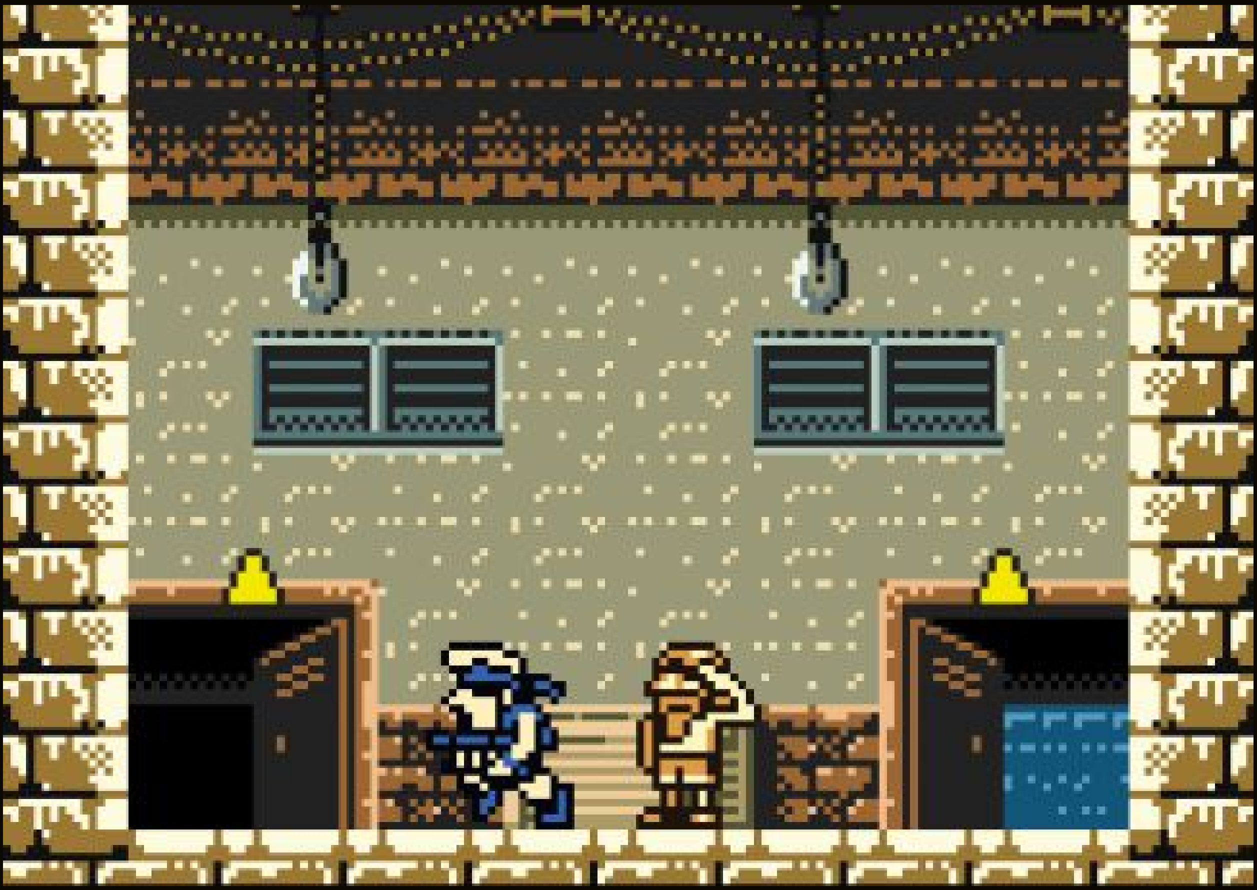
Riding the SV-000/Proto 2, a prototype of the SV-001 Metal Slug, which has the ability to turn around by double tapping in the opposite direction.



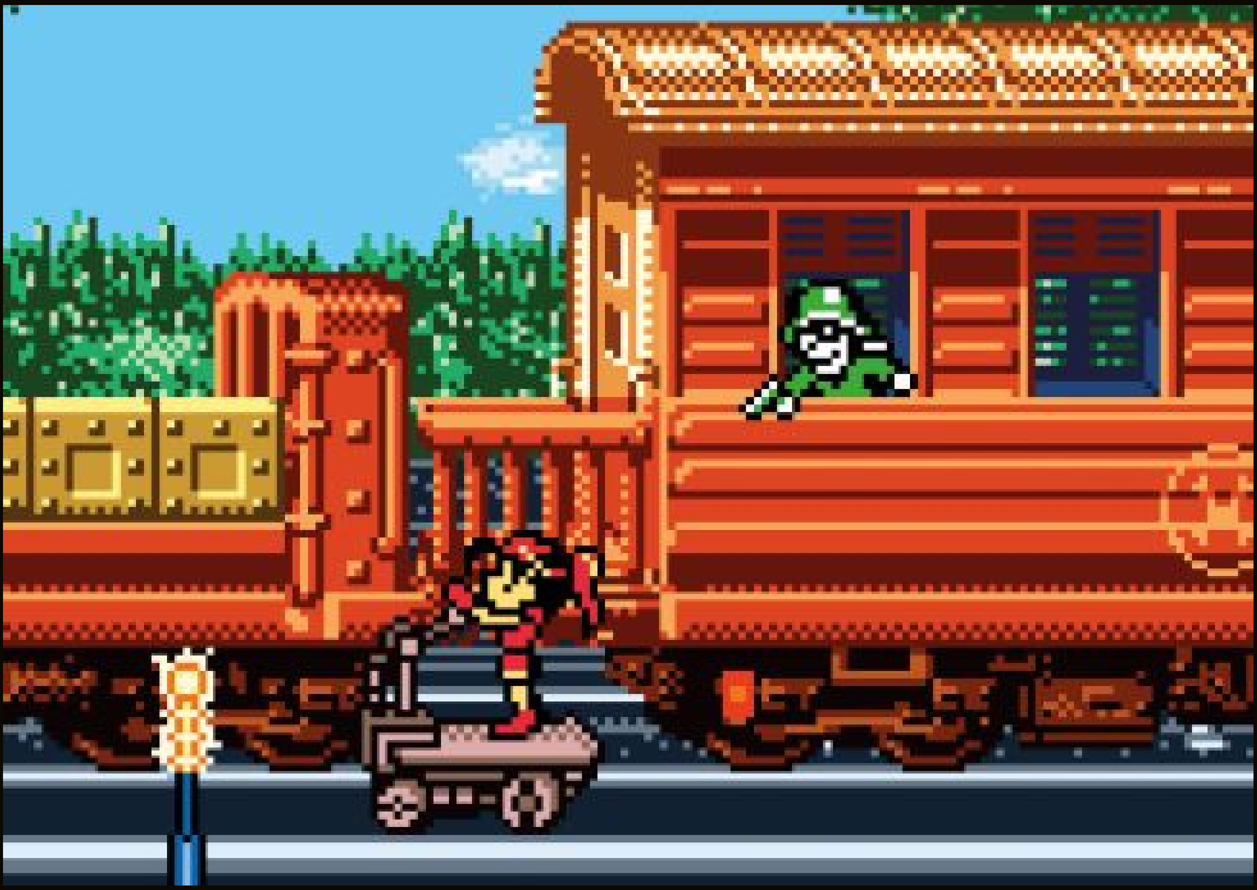
Armed with twin Gatling guns, the Rebel VTOL is the end boss of Mission Zero. This scene is quite reminiscent of the Keesi II boss in *Metal Slug 2*.



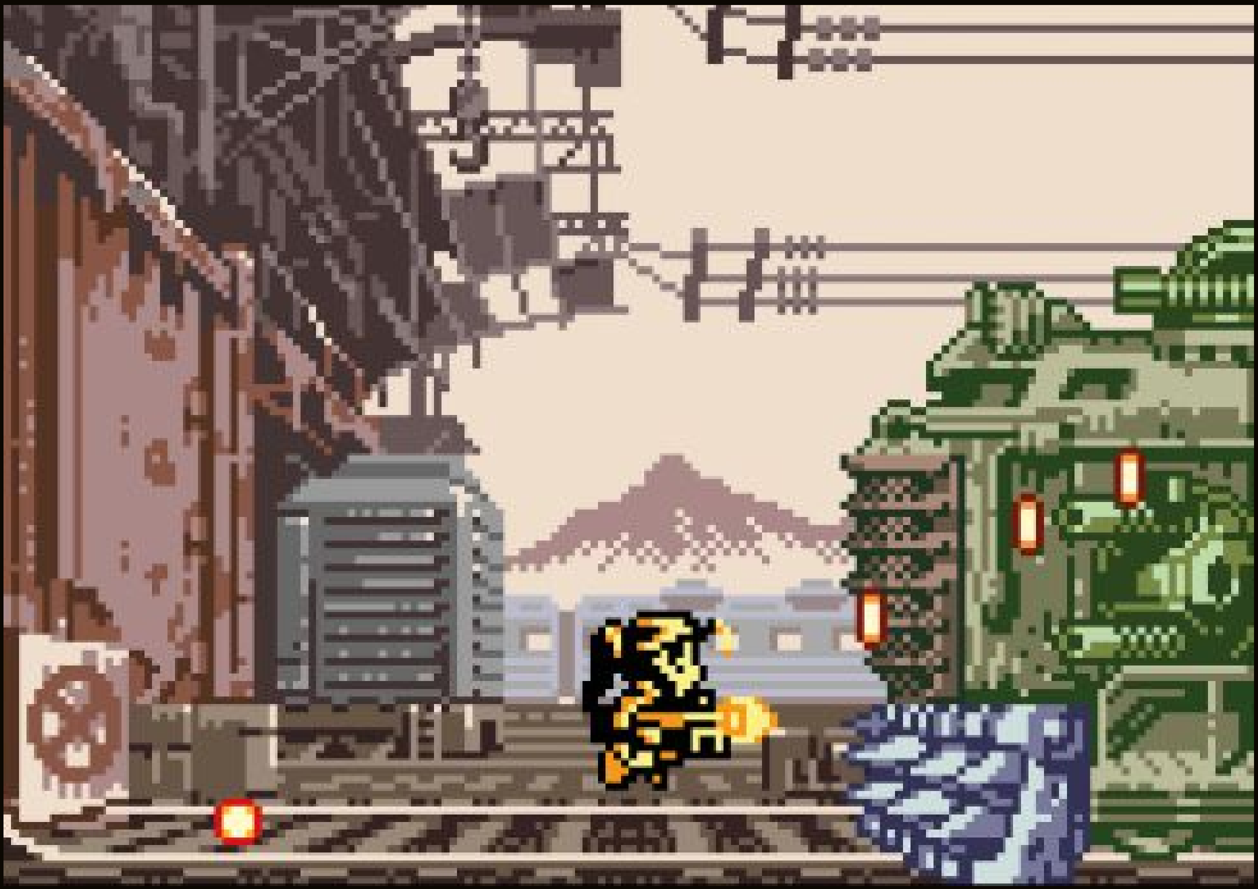
When up against stronger opposition, such as tanks and helicopters, you are best to use your grenades as they cause considerably more damage.



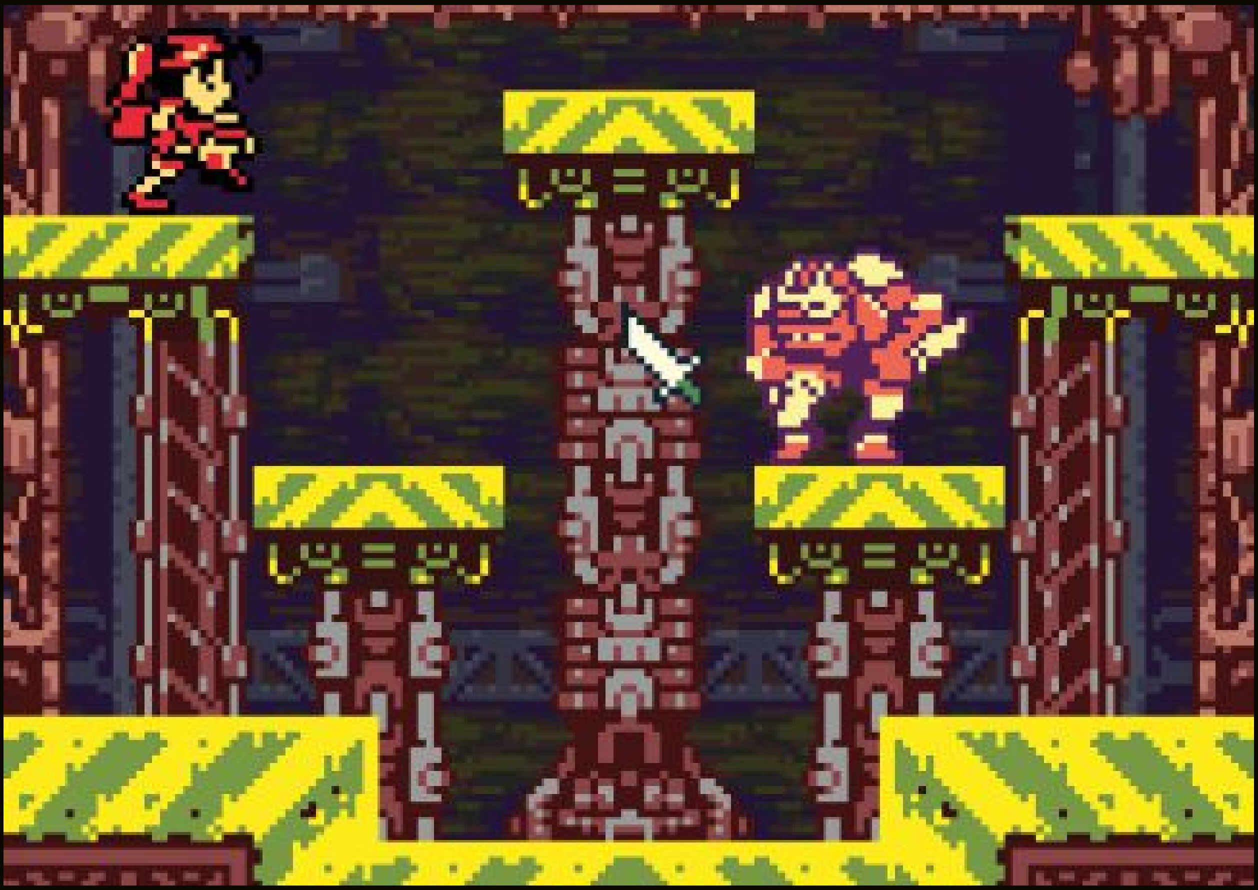
As is traditional in Metal Slug, you need to rescue the various POWs dotted around the game. This time, they also serve as a checkpoint for the end of certain missions.



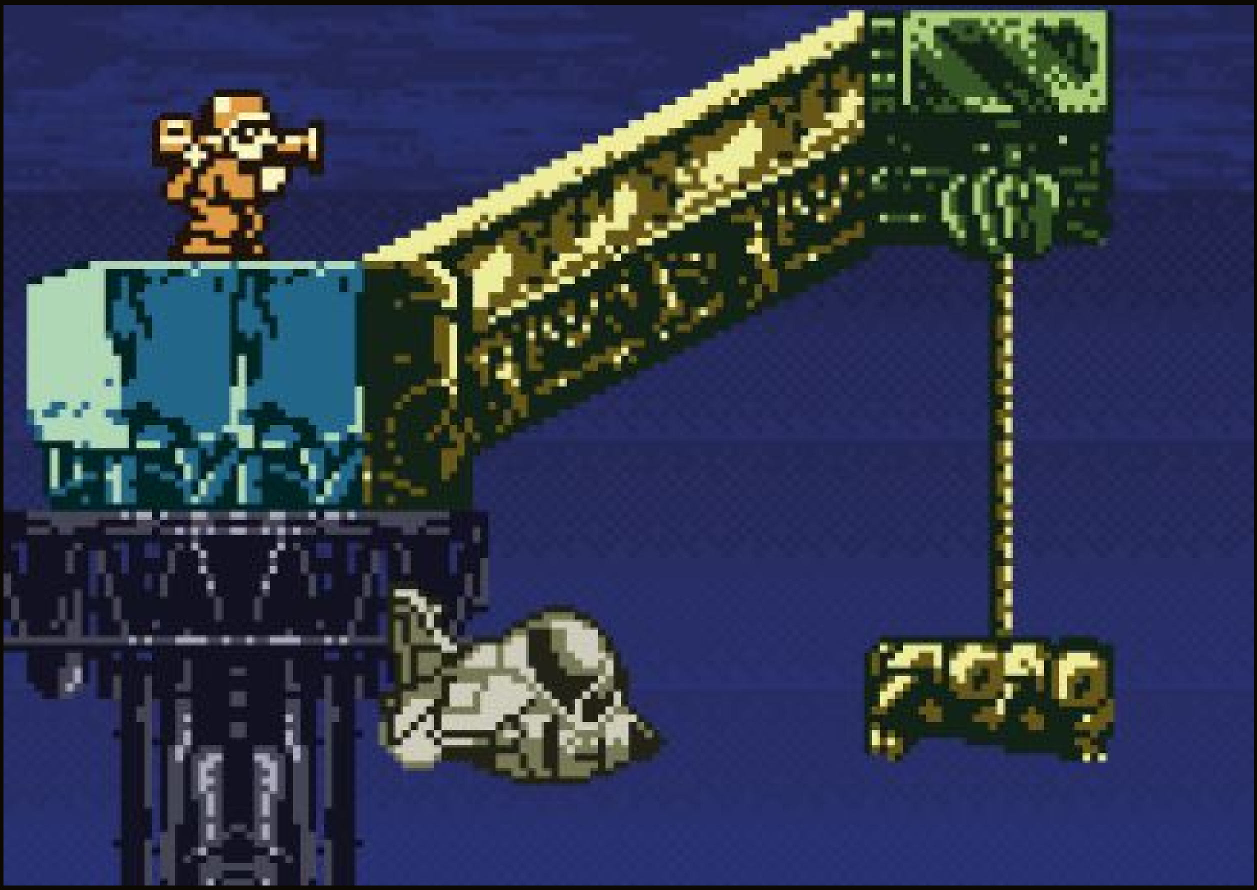
The start of Mission 5 sees you chasing a transport train in a hand cart. You must make it to the front whilst avoiding enemy fire and jumping some familiar-looking electric fences.



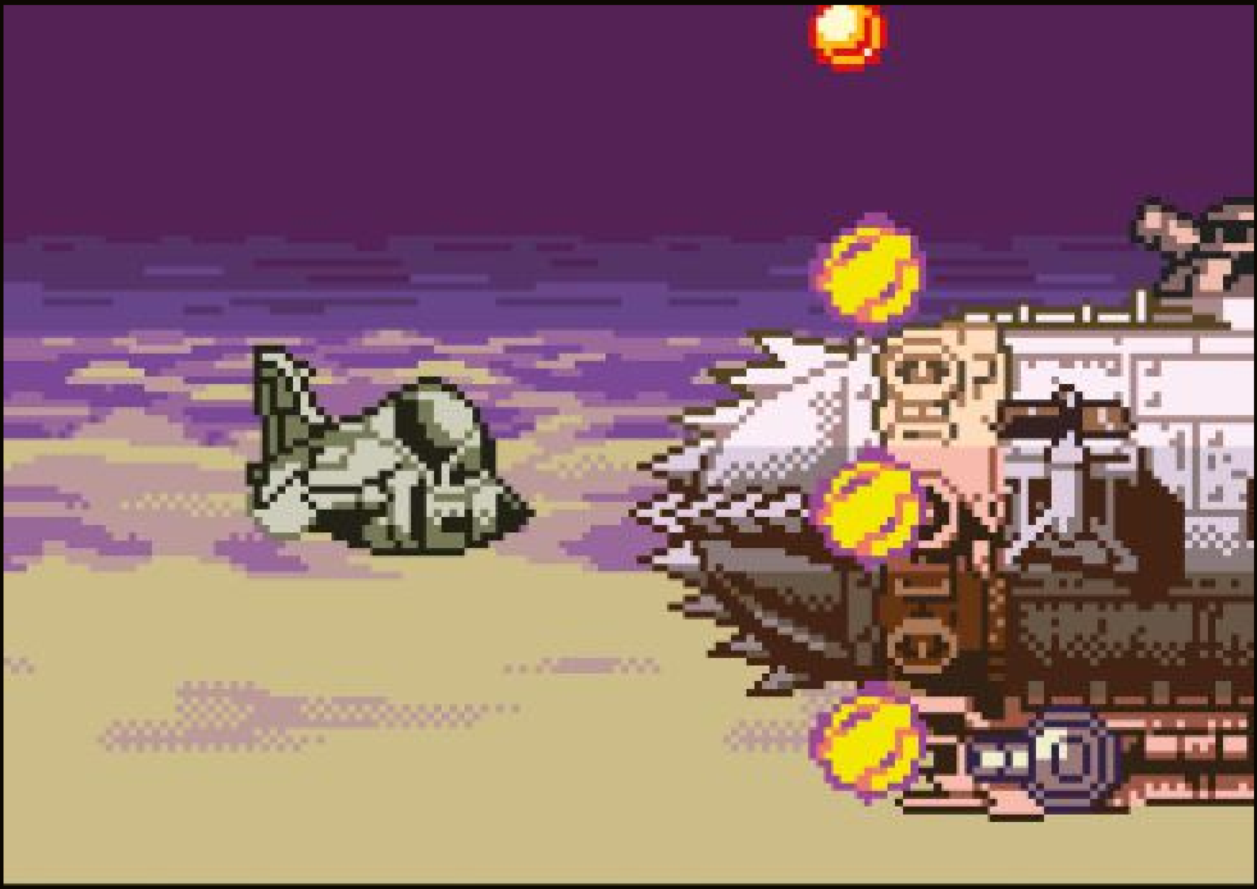
The Mission 3 boss, Rebel Train, inches slowly towards you while firing its cannon. The closer it gets, the less room you have to manoeuvre – and the nearer you are to its deadly spiked ram.



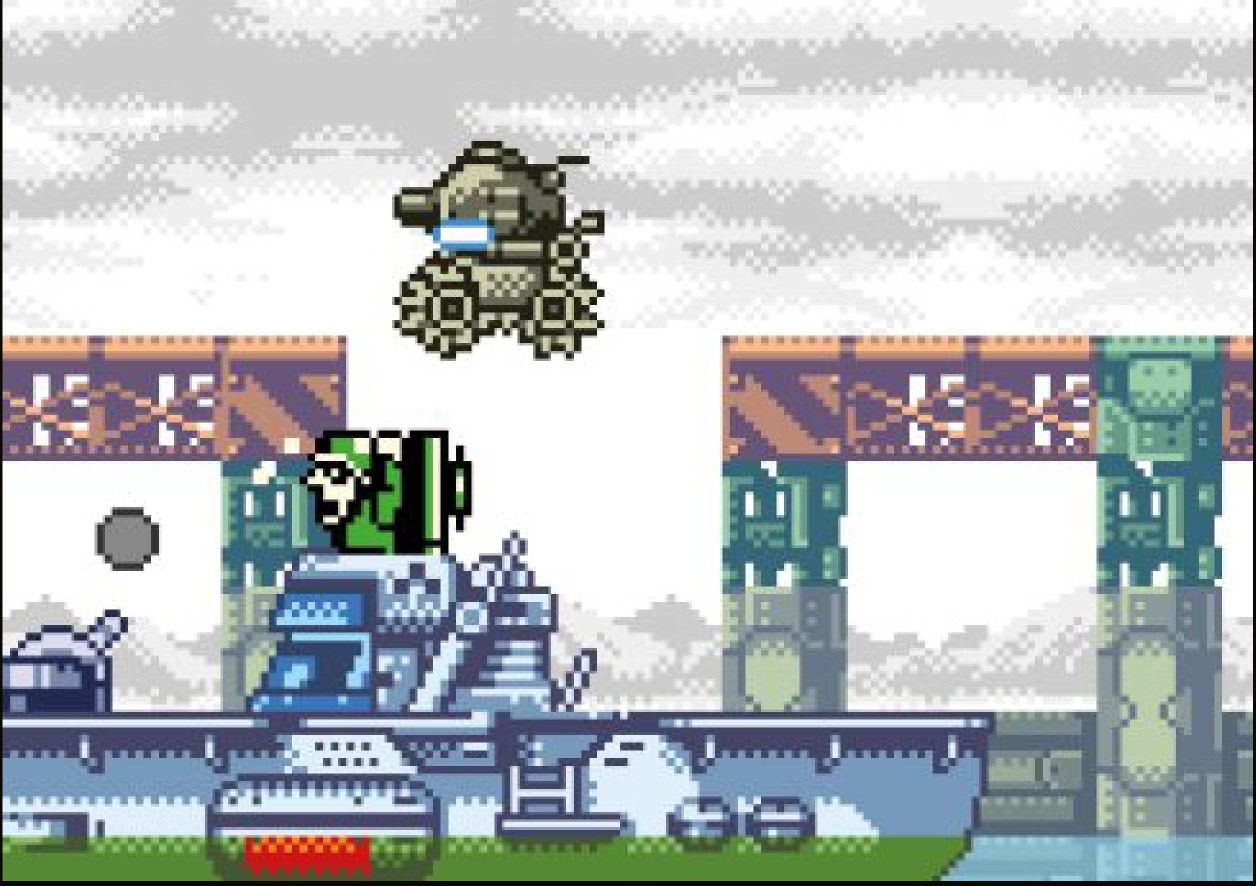
The knife-wielding Macba appears twice in *Metal Slug 1st Mission*. With some timely platform jumps, Macba can be easily defeated – so long as you avoid his boomerang-like flying knives.



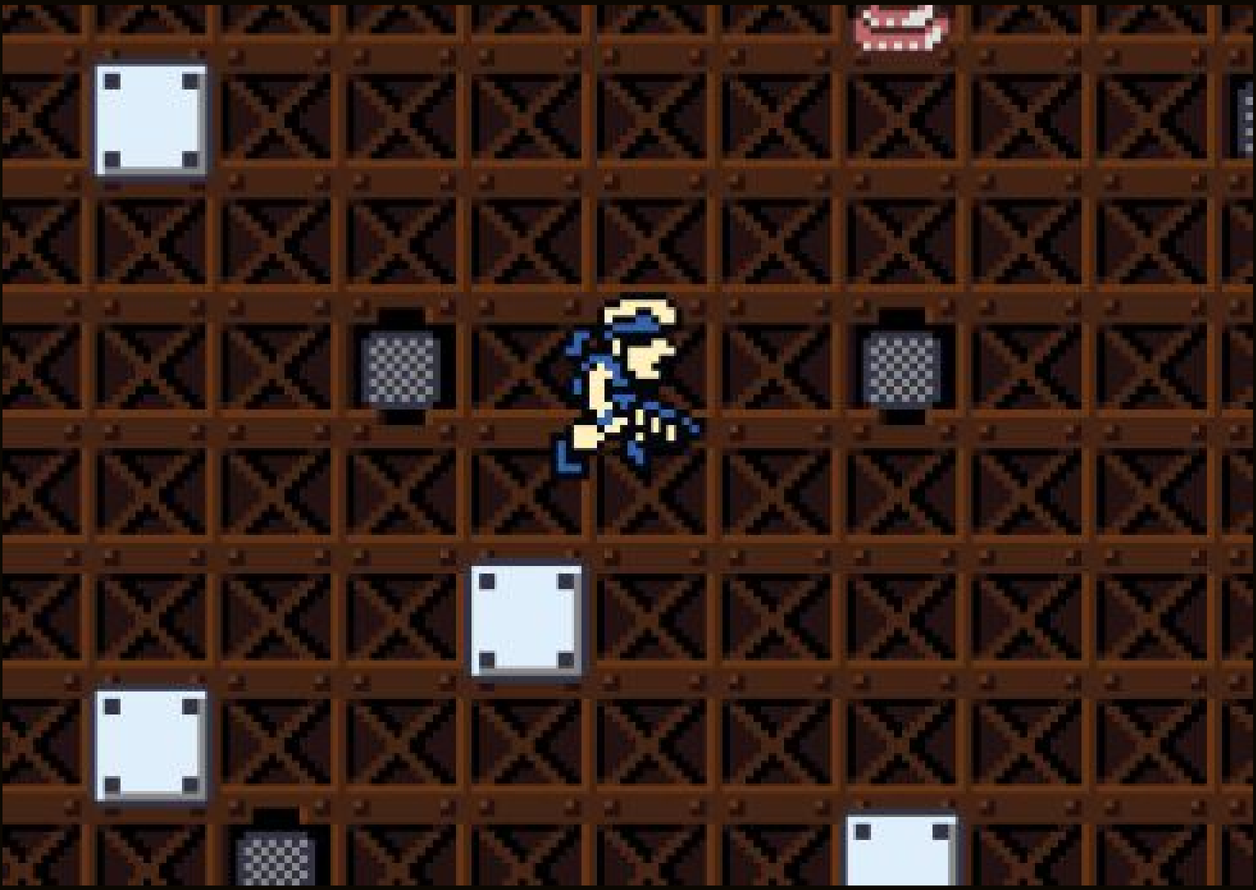
Piloting the Slug Flyer, you need to avoid the cranes and enemy fire. One of the few auto-scrolling levels in the game, this stage is quite tricky as it's very easy to find yourself trapped.



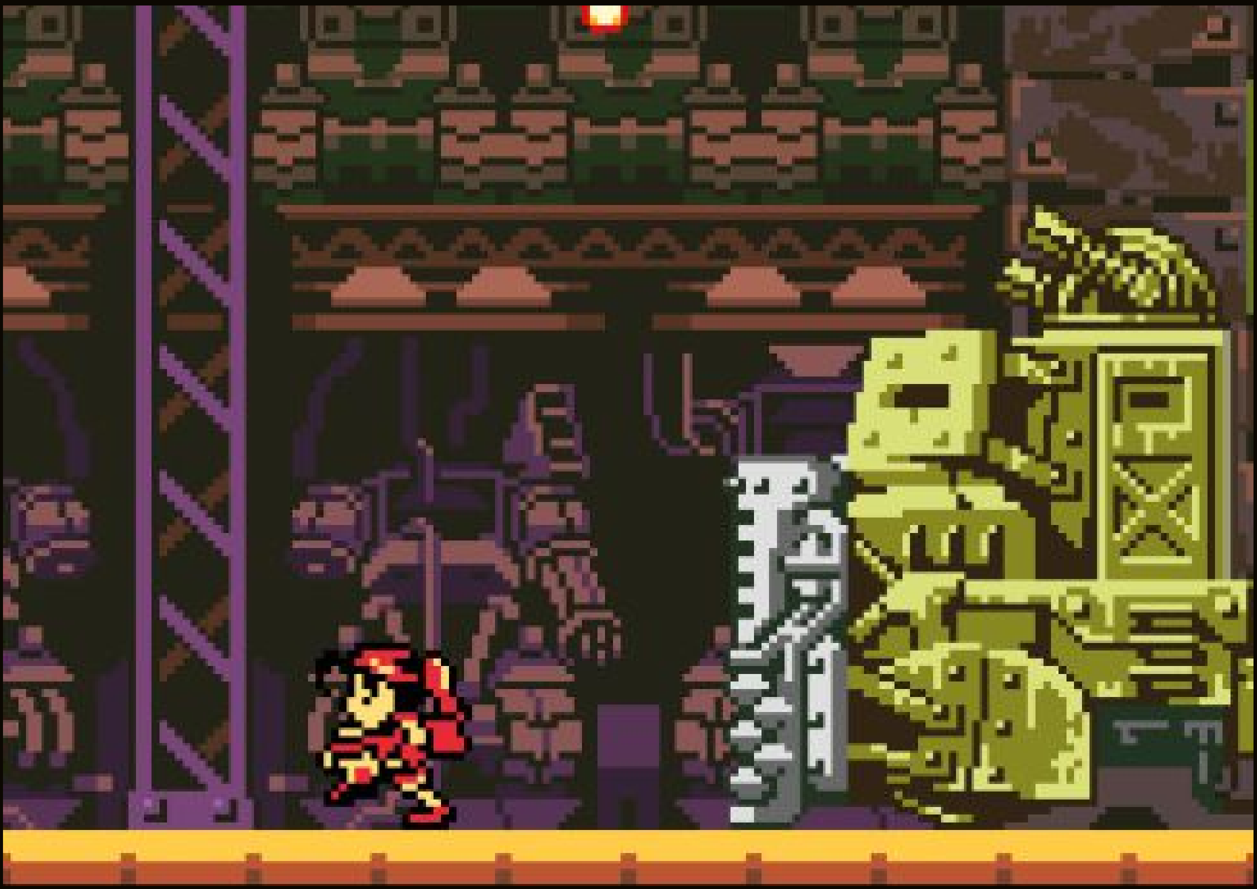
Moving from the background into the foreground, the Rebel Zeppelin in Mission 10 has multiple cannons that you must try your best to avoid in the Slug Flyer.



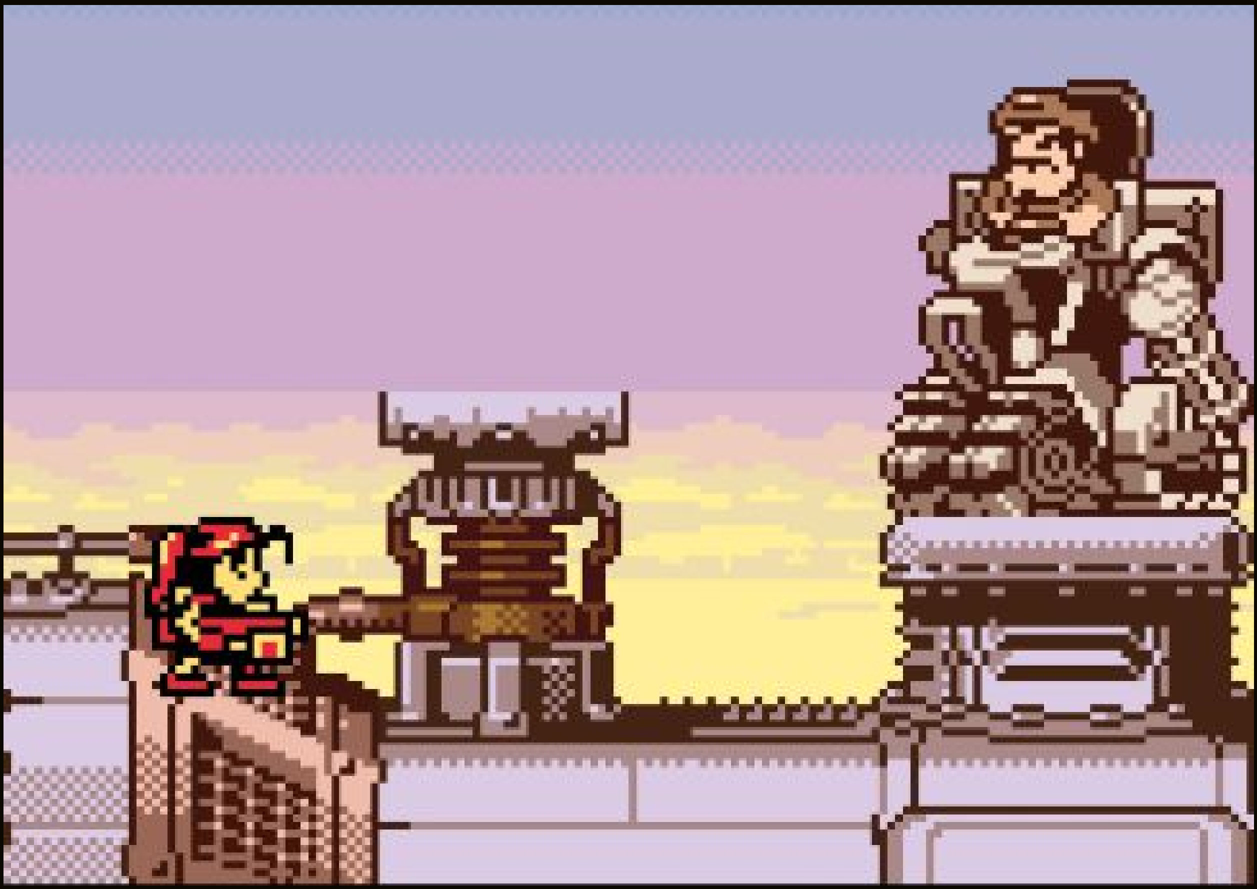
The end of Mission 14 sees you take on the Cargo Ship. You're in the SV-000 and can even jump onto the ship – just make sure you jump off again when it's destroyed, or you'll go down with it.



In a much more traditional platform game style, you must jump onto the blocks that appear, in a bid to reach the top. This serves as a nice contrast to the more frantic 'run-and-gun' gameplay elsewhere.

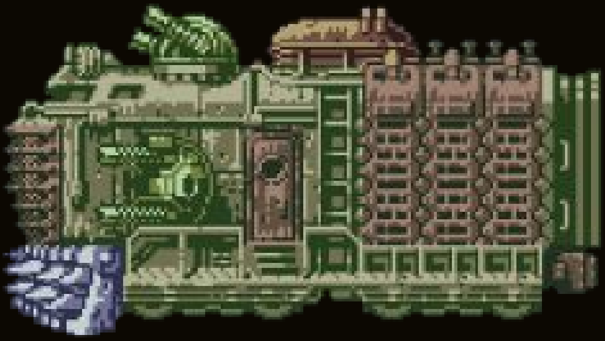


Driven by Hilde Garn, the rebel truck is one of the sub-bosses from the Final Mission. Once defeated, one last boss remains – Hilde Garn in his custom Slug!

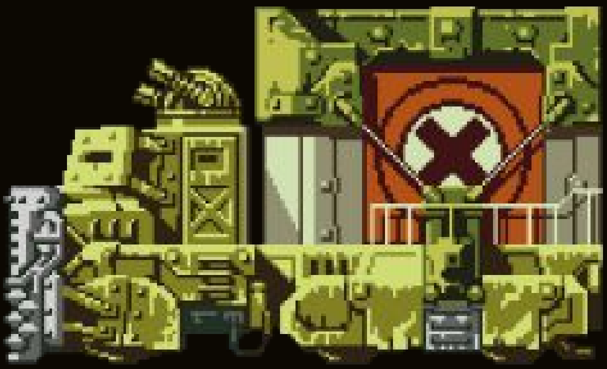


Bearing a passing resemblance to Donald Morden, Hilde Garn is the main protagonist and end boss in *Metal Slug 1st Mission*. Once defeated, his custom-made Slug makes an appearance in *Metal Slug 2nd Mission*, minus Garn himself.

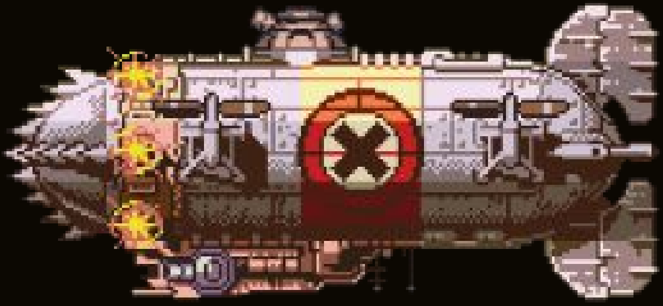
The boss battles in *Metal Slug 1st Mission* are spread out across various stages. In true Metal Slug tradition, the bosses are huge and pack heavy firepower – which is impressive, given the shift to less powerful portable hardware.



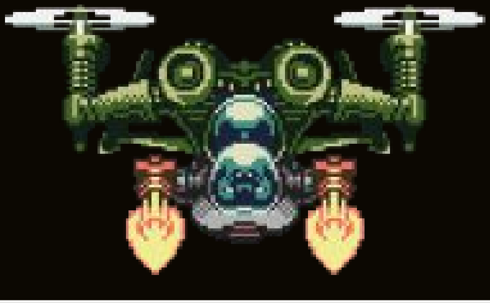
Rebel Train (Mission 3 boss)



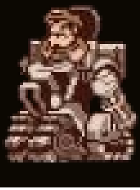
Rebel Truck (Final Mission sub-boss)



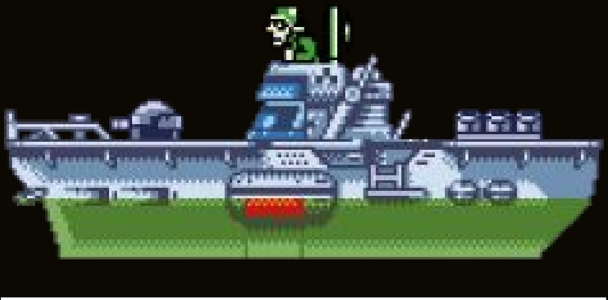
Rebel Zeppelin (Mission 10 boss)



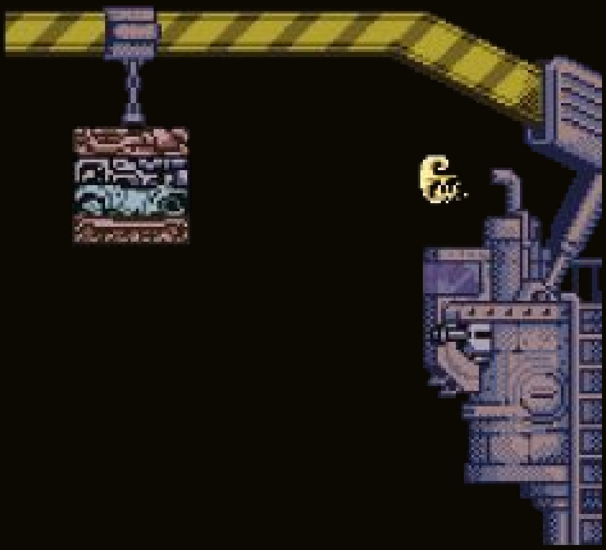
Rebel VTOL (Mission Zero boss)



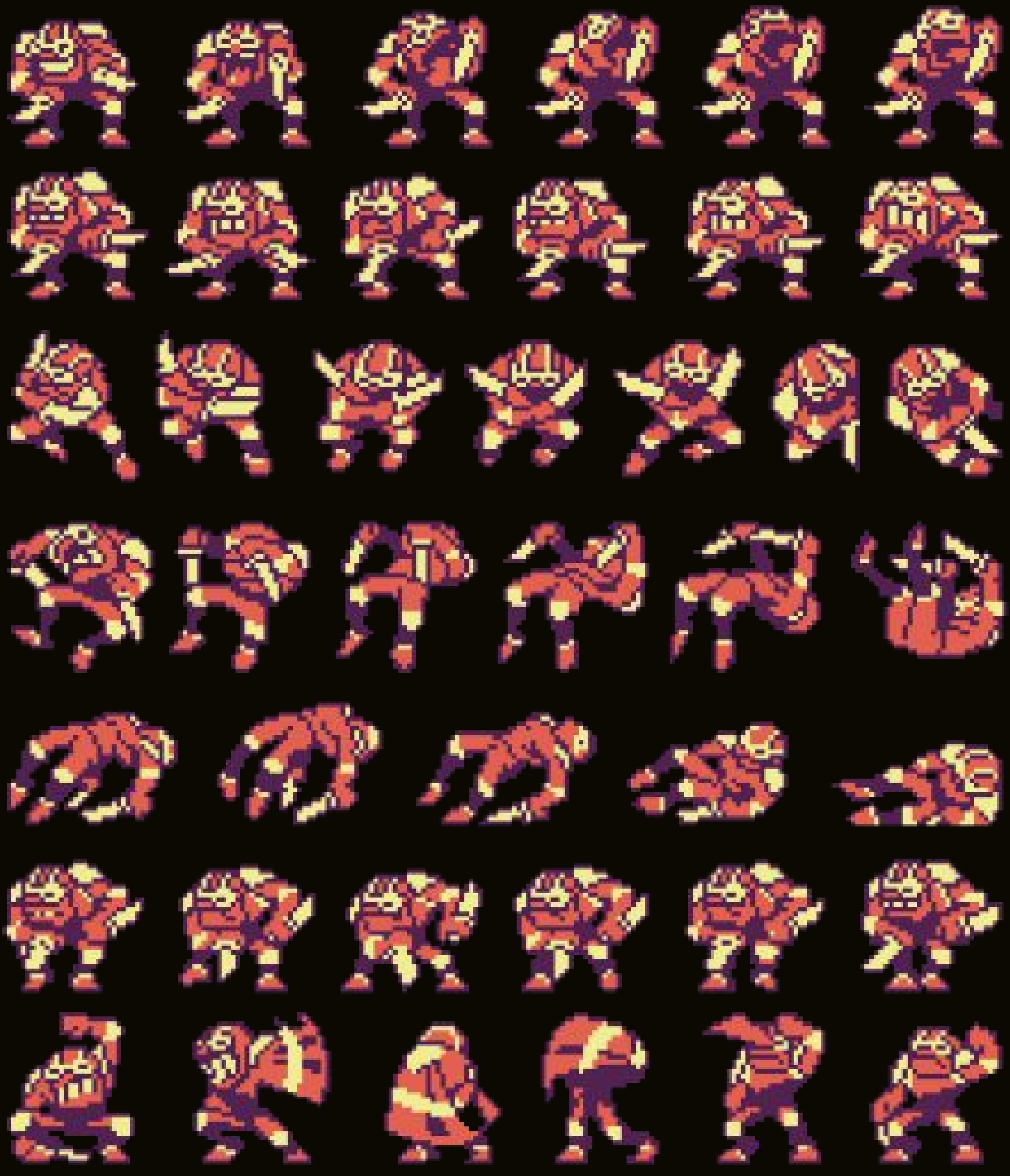
Hilde Garn (Final Mission boss)



Cargo Ship (Mission 14 boss)

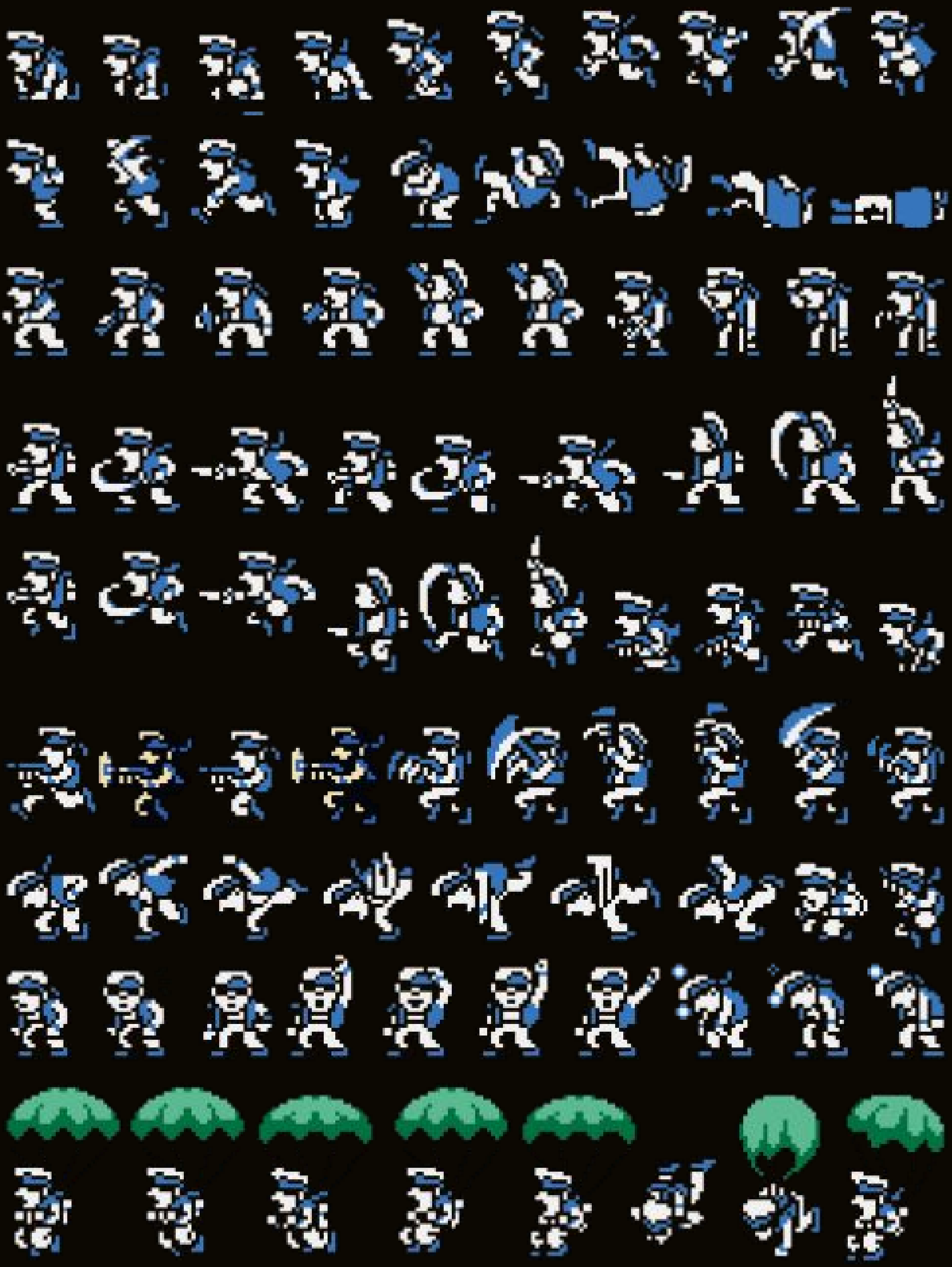


Electromagnetic Crane (Mission 12 boss)

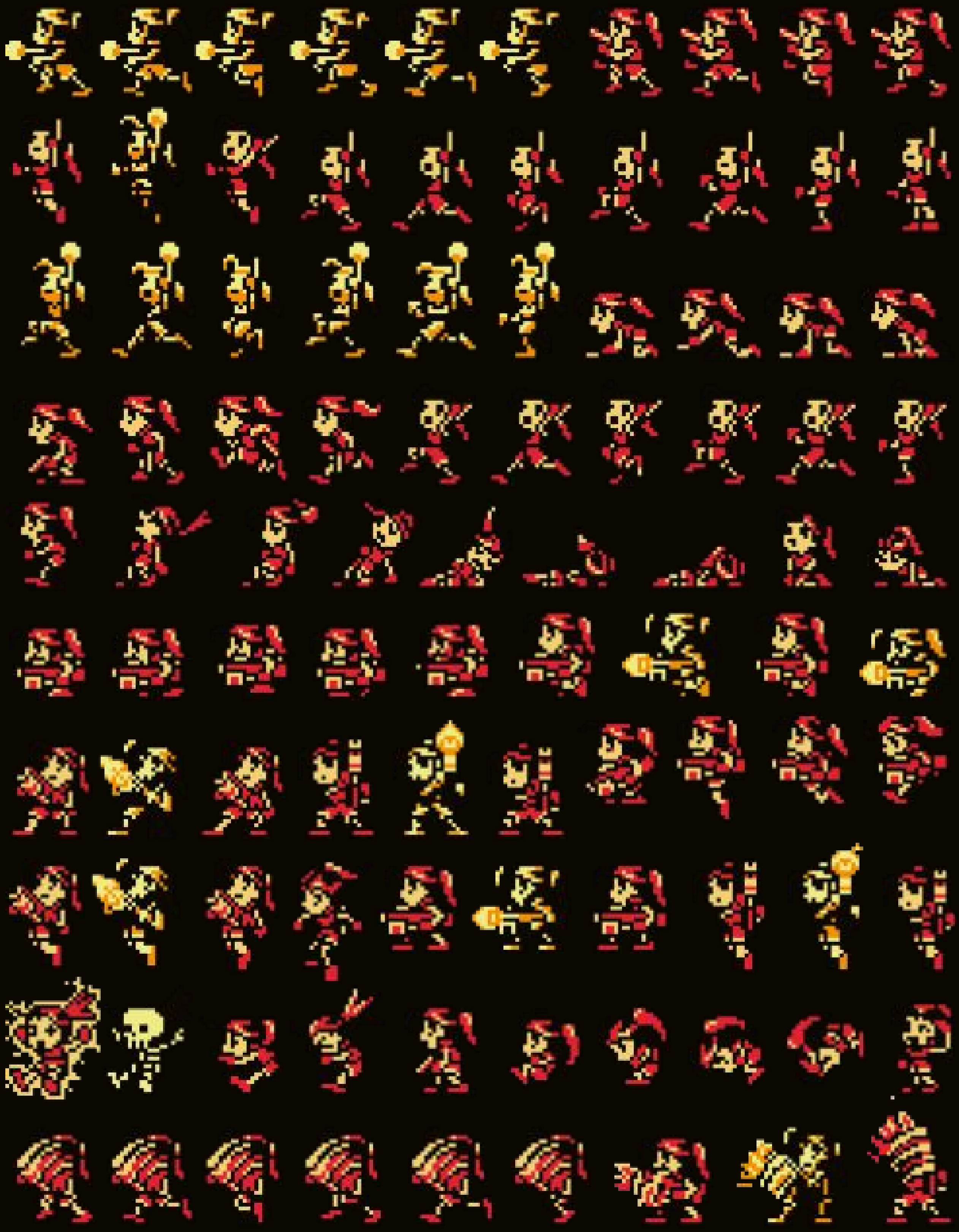


Macba (Final Mission sub-boss)

Various sprites for the main character that showcase the impressively detailed frames of animation – a real marvel, considering the limited hardware. Visually, the character is reminiscent of series legend Marco, but, within the game, he isn't actually named; he was later referred to as 'HERO' on the Metal Slug 10th Anniversary site.



Once completed with the default character, you unlock a female hero, who, once again, is an unnamed enigma. This new character controls the same, but has different animation frames.



First released: 2000 / Players: 2 / Developed by: SNK / Published by: SNK

METAL SLUG 3

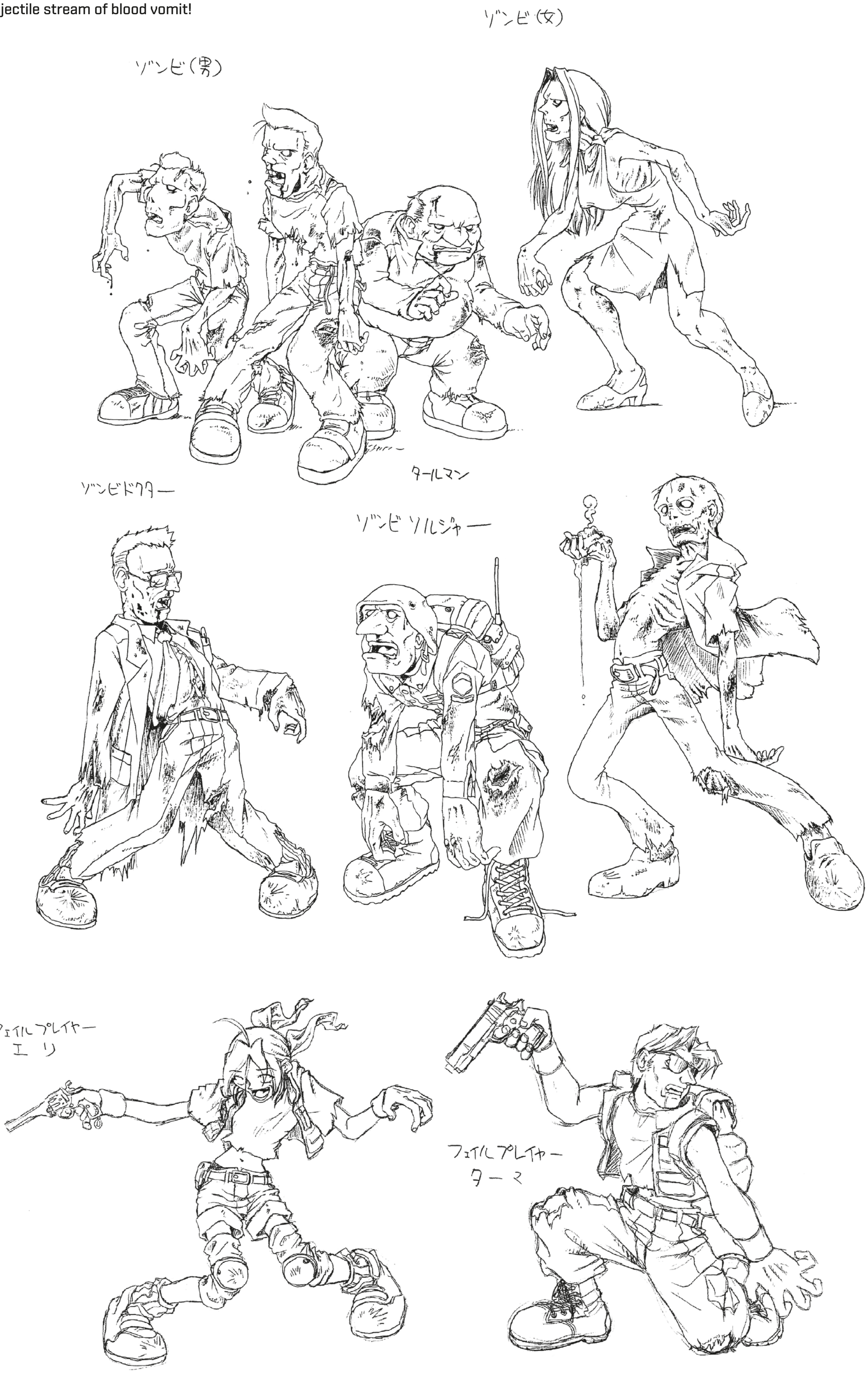
ANDROID ARC IOS NG SWITCH

PS2 PS3 PS4 VITA WII

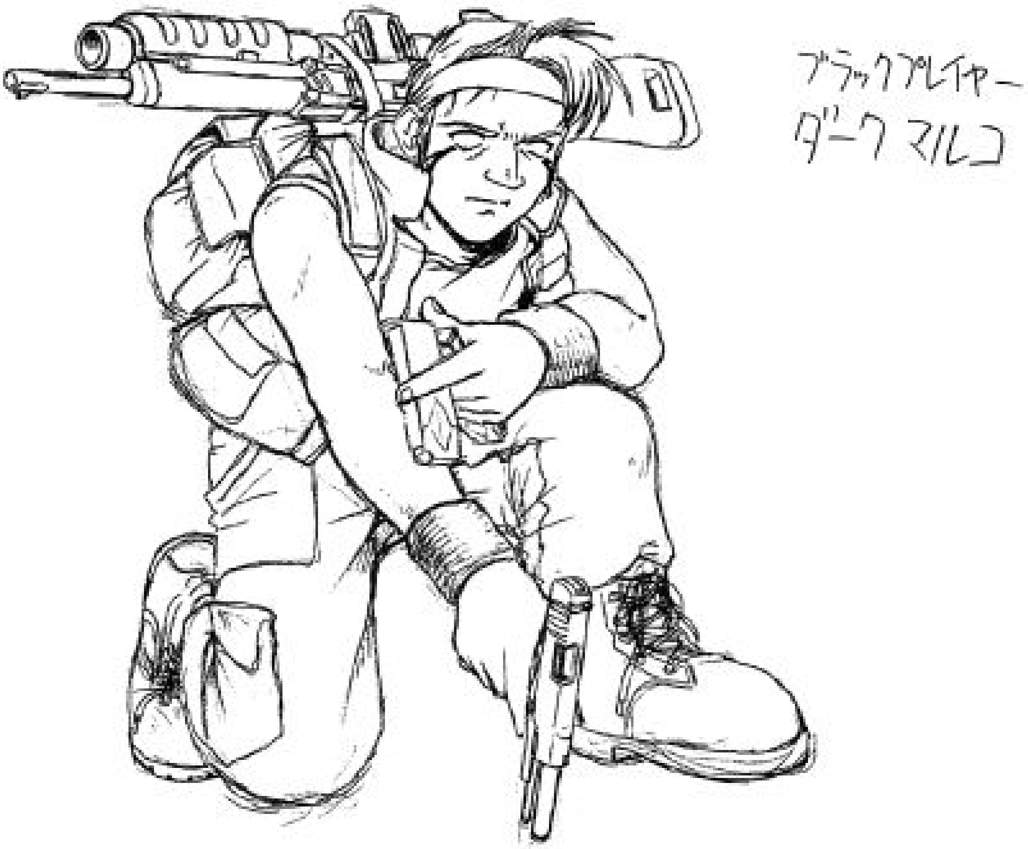
PC XBOX 360 ONE

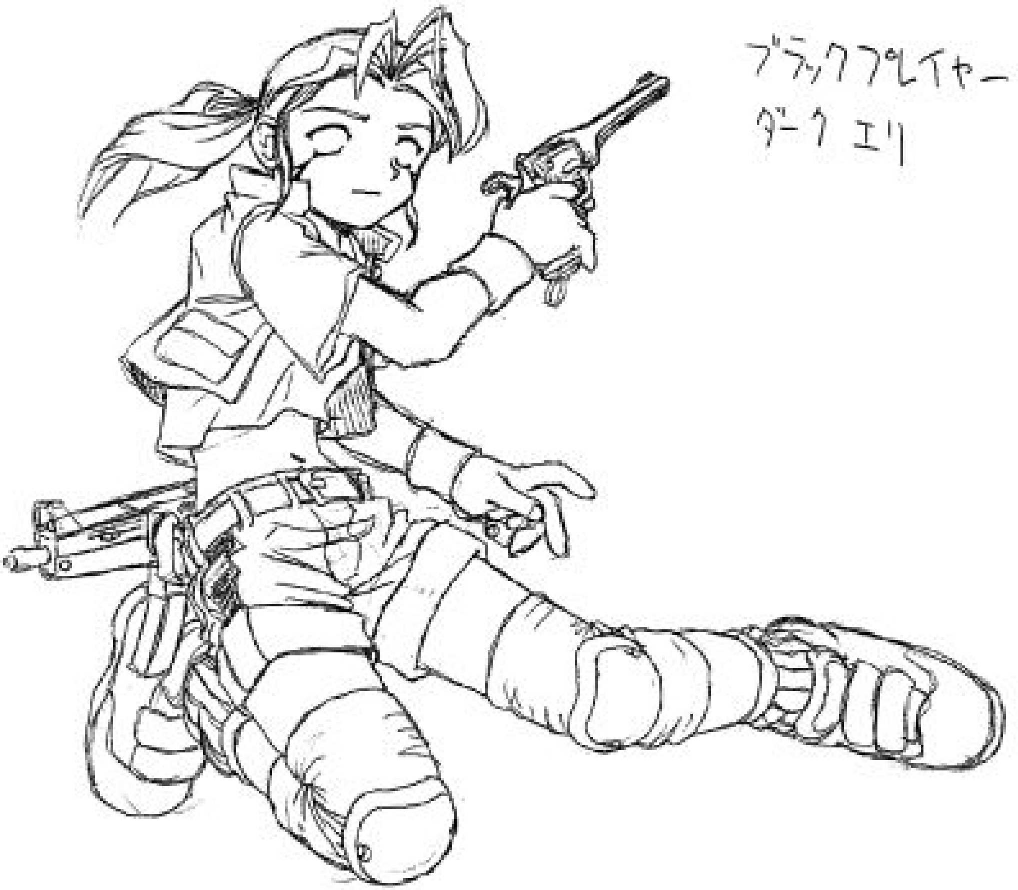
As is so often the case with sequels, the third mainline Metal Slug game upped the ante and introduced a whole host of new ‘Slug’ vehicles to commandeer, as well as additional character transformations. Players could, at predetermined points, hop into the Slug Copter and Astro Slug – just two of seven new rides introduced in the game – and could also pull on scuba gear, a jet pack and even a space suit. It was also possible to be infected and turn into a zombie while still maintaining control of your character. While SNK was keen to expand the game in terms of content, the inclusion of branching pathways was perhaps the most significant improvement over the previous titles in the series.

Concept art showing the various zombie transformations of playable and non-playable characters. While in zombie mode, your special attack is a projectile stream of blood vomit!

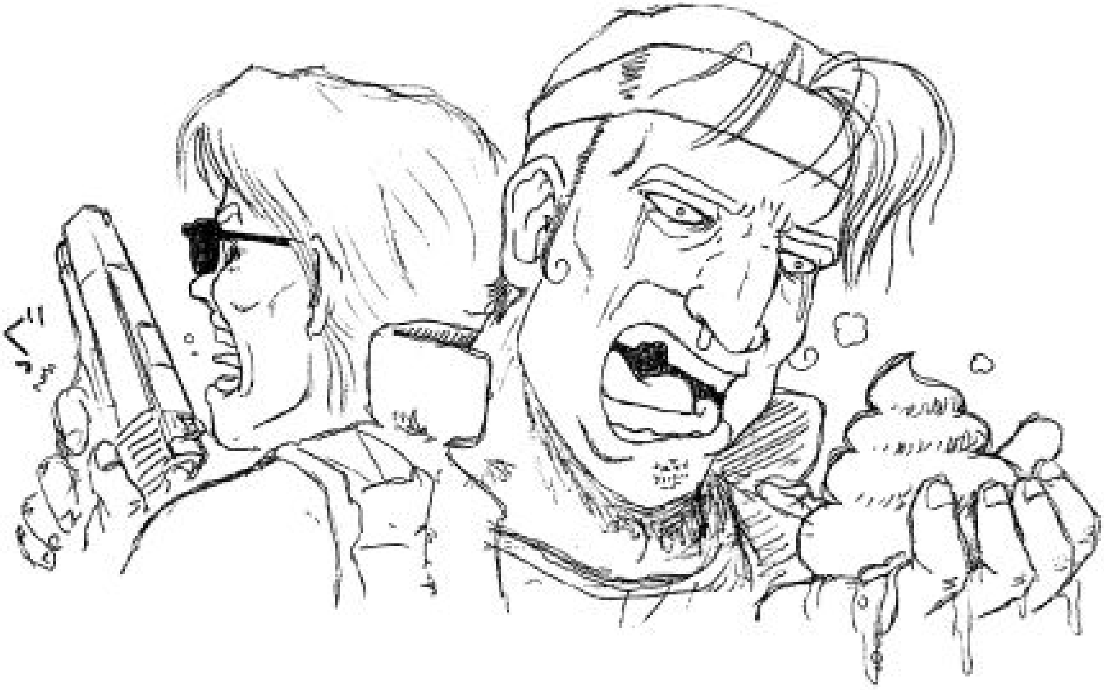

ゾンビ(女)
ゾンビ(男)
タールマン
ゾンビドクター
ゾンビソルジャー
フェイルプレイヤー
エリ
フェイルプレイヤー
ターマ

Marco and Eri are shown here with blank eyes – most likely a concept for the clones created by the Mars People aboard the mothership.

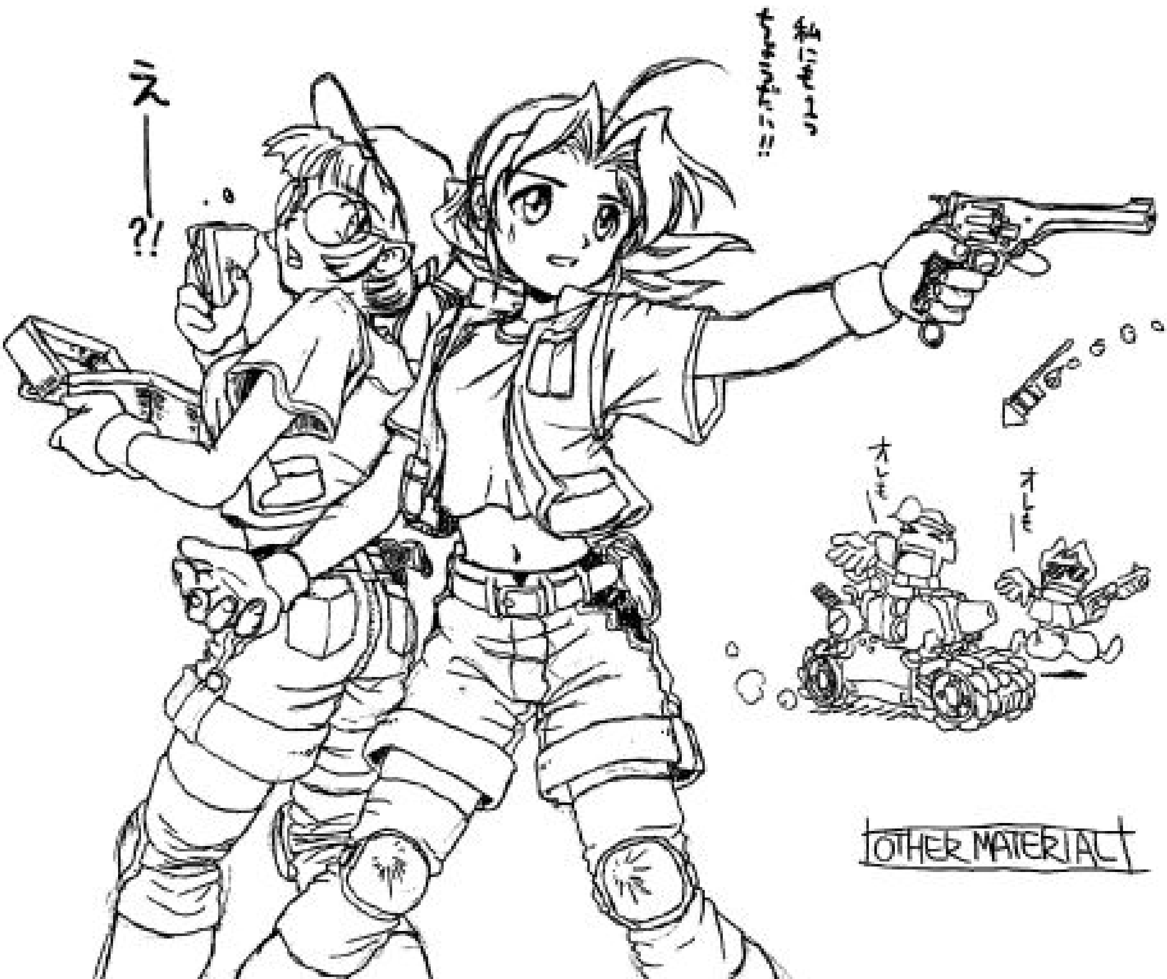

ブラックプレイヤー
ダーク マルコ


ブラックプレイヤー
ダーク エリ

This quirky piece of artwork shows Marco holding what appears to be a 'present' left by a stray dog!

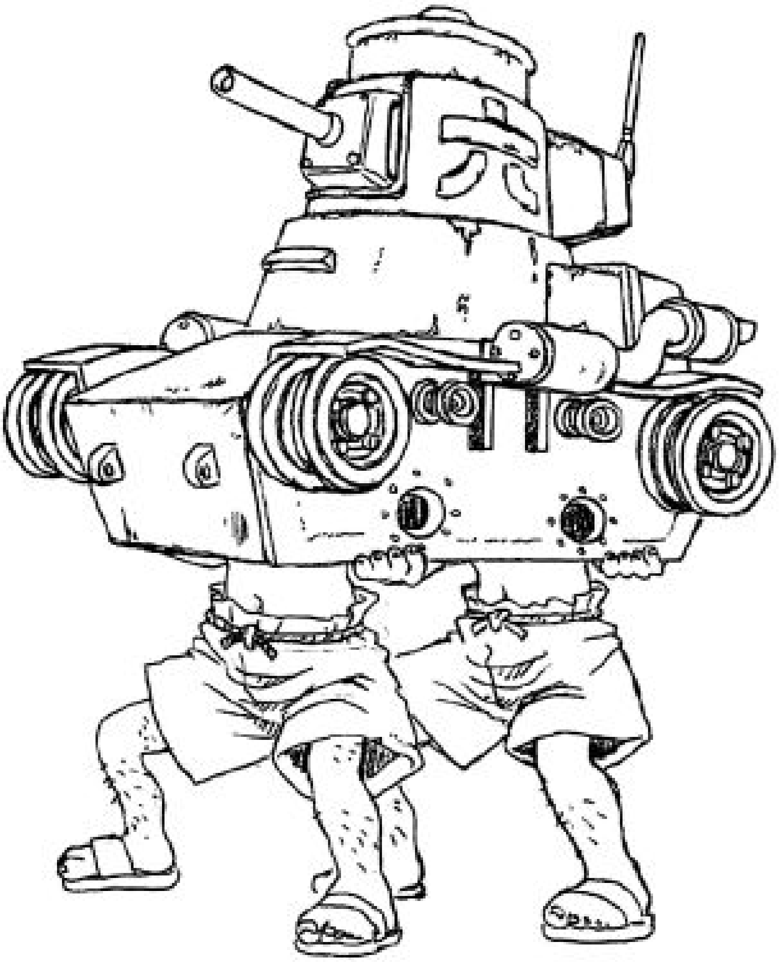


Eri is armed and ready for action, while the more casual Fio is opting to finish her lunch first.

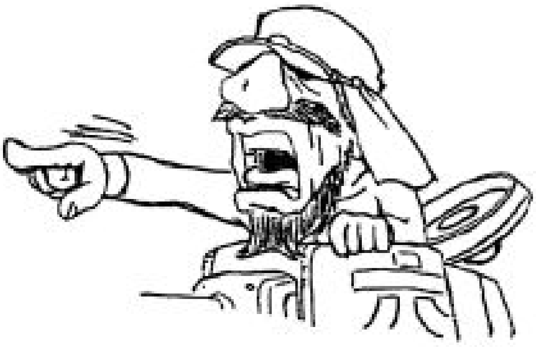

私にもーっ ちょうだい!!
え—?!
オレも—
オレも—
OTHER MATERIAL

Concept art for the humorous Japanese 'Tank Soldiers'. Surprisingly, this is the fastest-moving of all the tanks in the Metal Slug series, presumably thanks to the two Japanese soldiers carrying it!

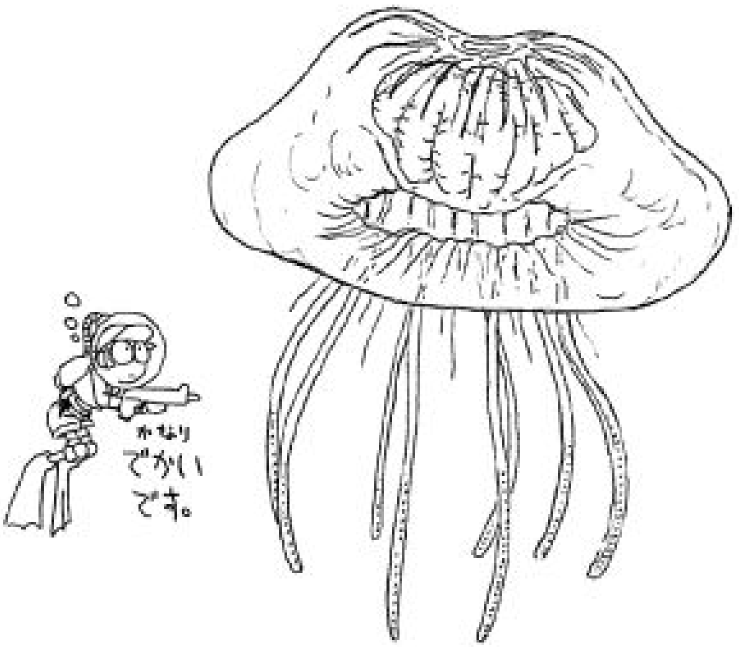
ジャポネス戦車兵

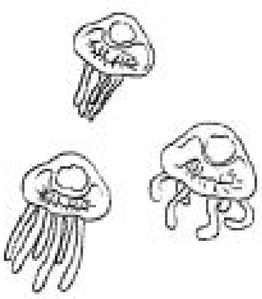


この戦車、攻撃受けると
たまに血が出ます。
生っぽいです。
敵の名前は「戦車」ではなくて「戦車兵」ですね。
なるほど良く見れば下半分
ジャポネス兵です。
なんだかマヌケです。
コメントもマヌケになってしまいました…♪



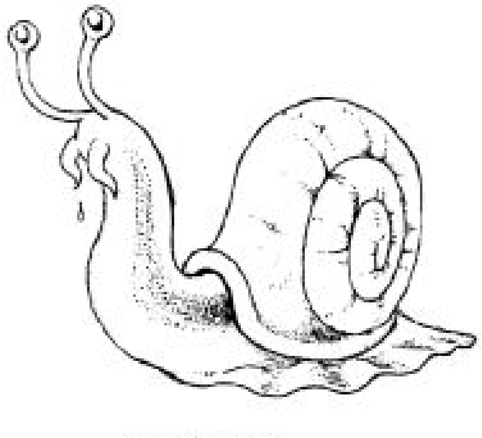
Miscellaneous concept art sketches, showing various enemies and objects from *Metal Slug 3*. These include the giant moray eels, humorously named Helen, Linda, Jenny and Barbie.

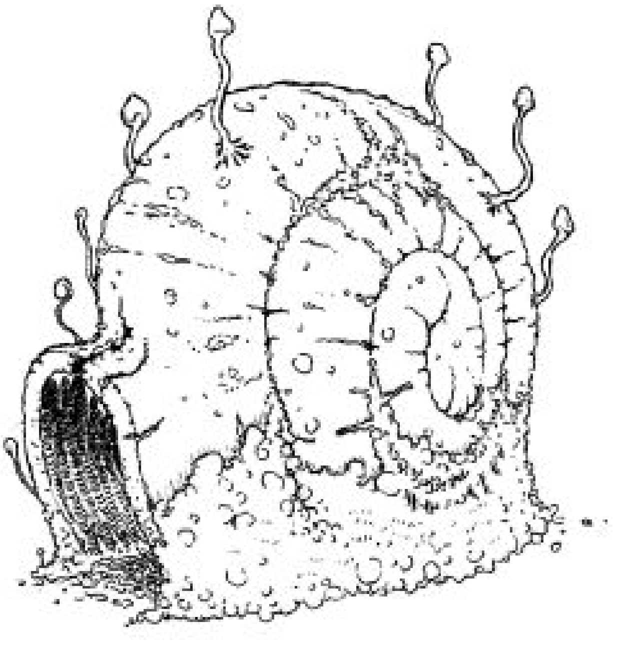


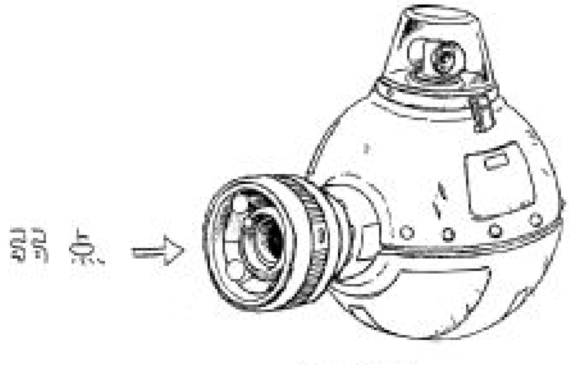

水母 こども

水母 おかあさん
（うつぼに食われる）

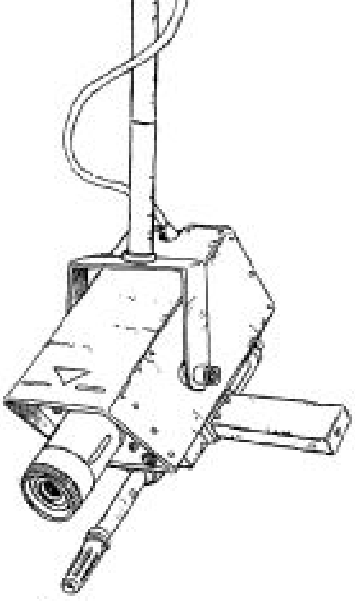
でんでんハウス & エスカルゴ



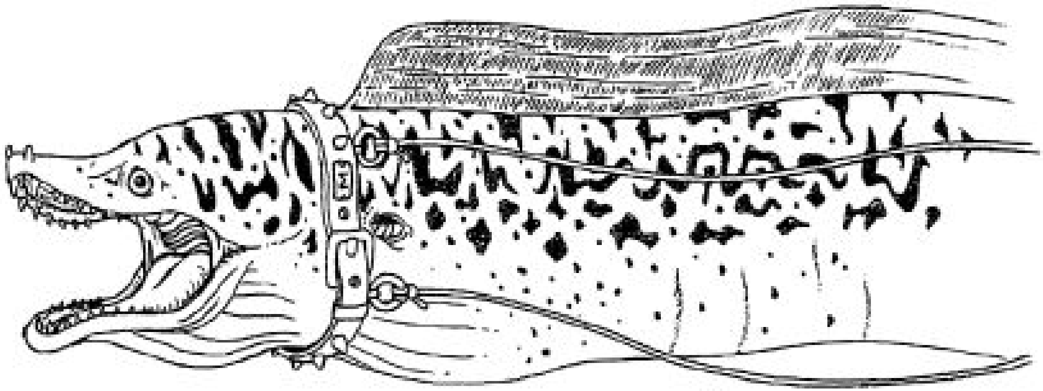




パトロボ

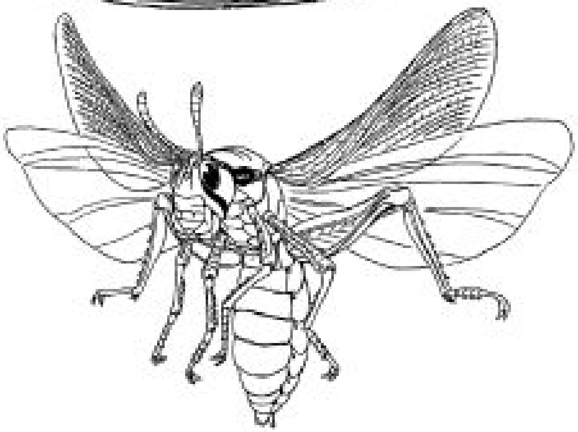


監視カメラ



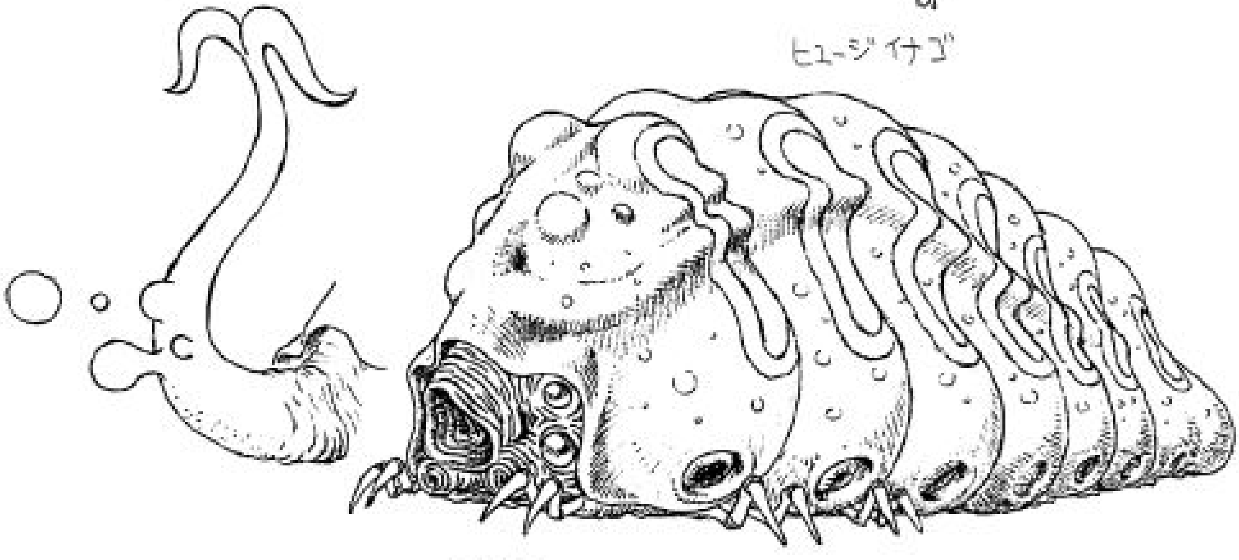
巨大ウツボ

ヘレンウツボってのが本当にいるんですね…
ヘレンって人の名前？ 辞書では「古代ギリシャん」ってなってましたけど意味わかんねーよ。



ヒュージイナゴ

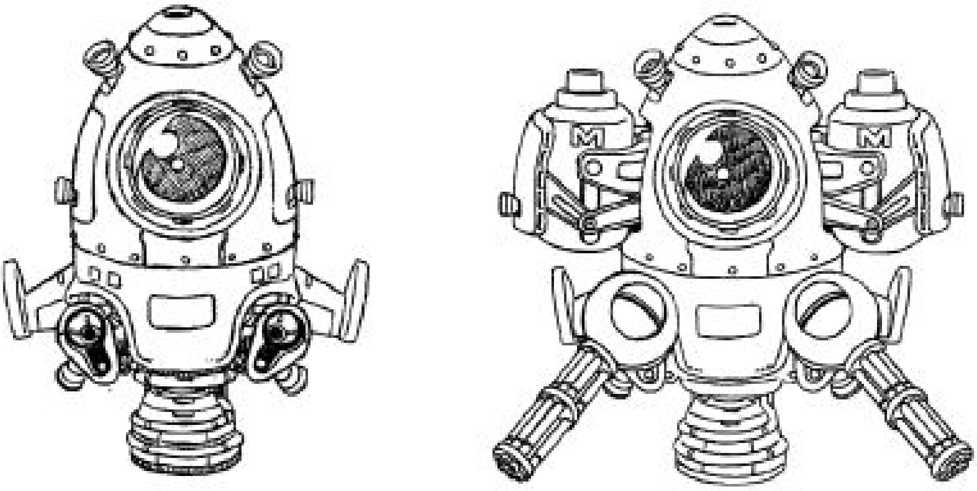
ヒュージグラブ



これ→

ヒュージグラブ(小)

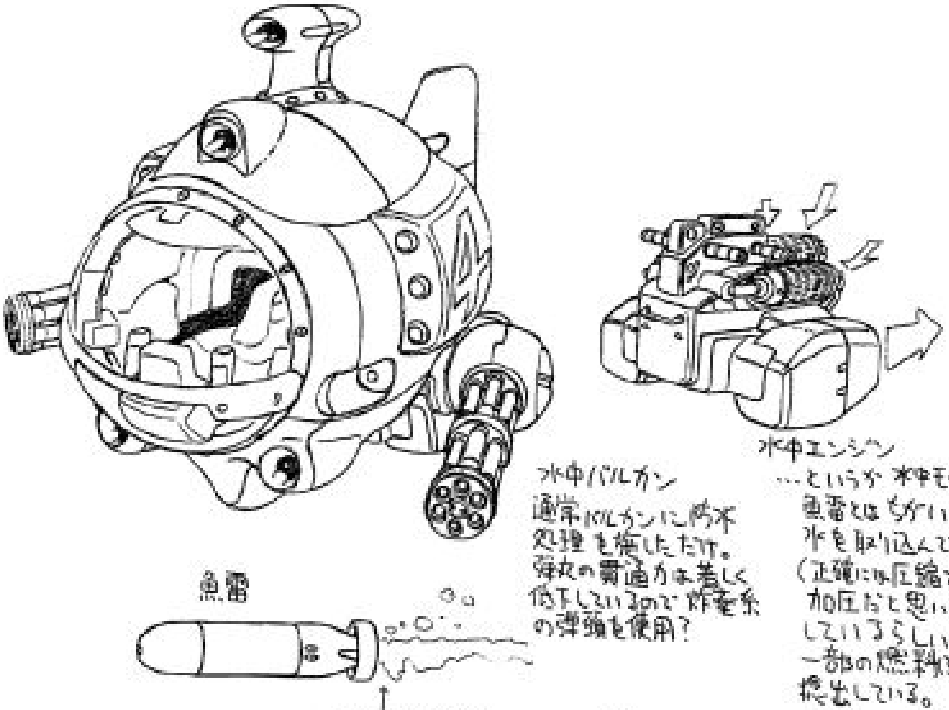
Metal Slug 3 introduces loads of new Slugs which freshen up the gameplay in interesting ways. Special mention must go to the Astro Slug, the first Super Vehicle to make it into space!



モーデン軍が開発した1人乗りの
宇宙艇。
単発機銃1門と特殊武装用
アーマメント2機 及び バルカンユニット
台座を装備。

フル装備

Astro Slug



水中バルカン
通常バルカンに防水
処理を施しただけ。
弾丸の貫通力は著しく
低下しているので炸薬系
の弾頭を使用？

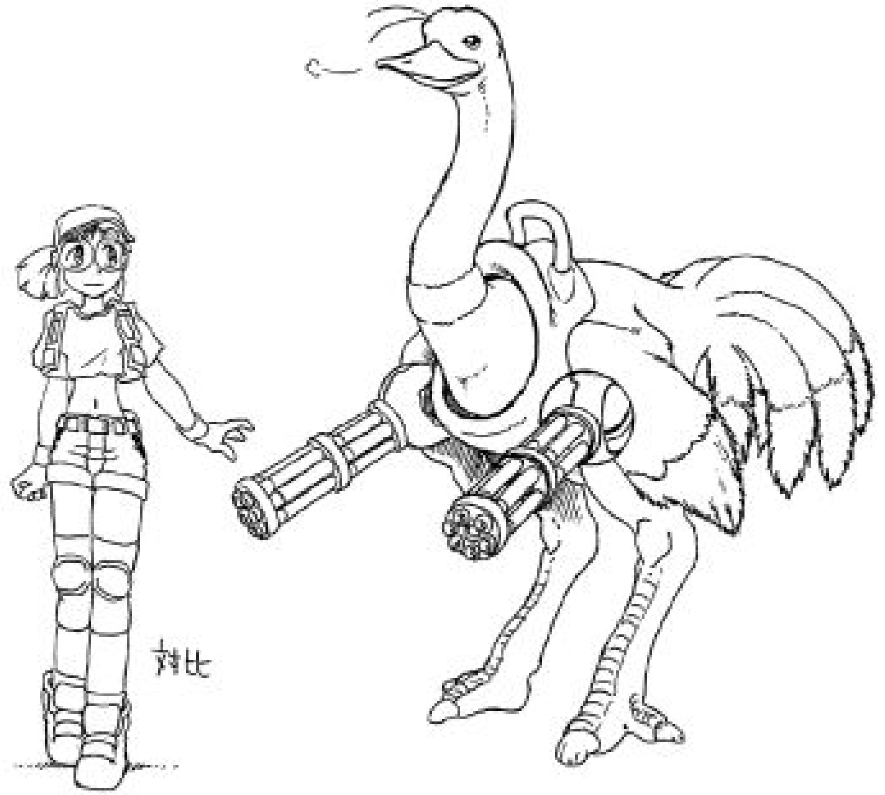
水中エンジン
…というか水中モーター？
魚雷とはちがい、外部から
水を取り込んで圧縮噴射
（正確には圧縮ではなくて
加圧だと思います。）
しているらしい。
一部の燃料？は水から
抽出している。

魚雷

何か、水を発生させて
タービンで圧縮して高圧
噴射してるらしい。良くわか
らないけど熱源探査には
掛らないんだって。

プロセス逆かな…？

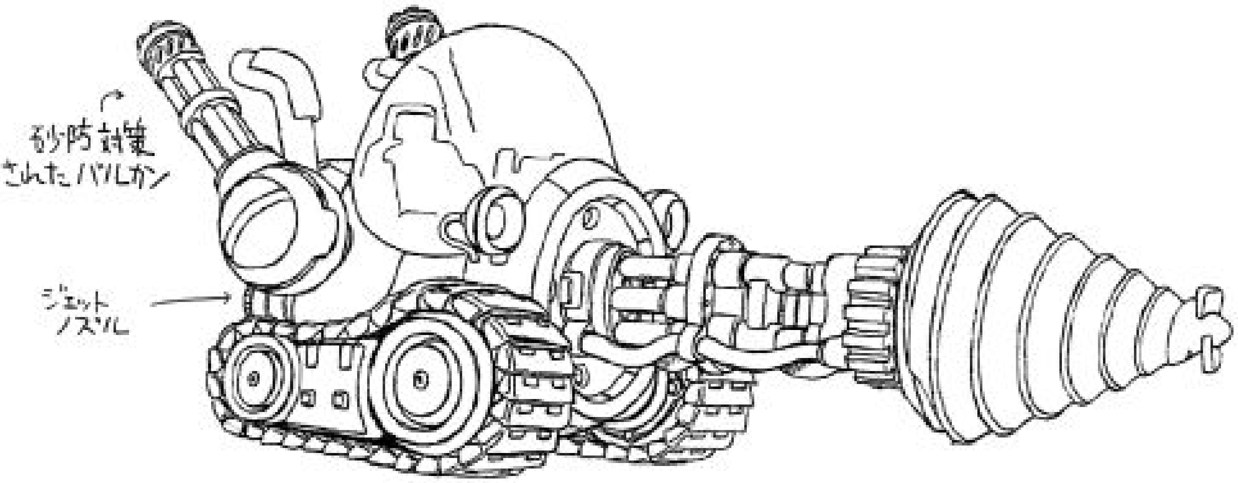
Slug Mariner



何と飛べる
ダチョウである。
(ジャンプだろうか?
とりあえず羽ばたいて
いるので飛んでいる様
にも見える)

どうでもいいけど
ダチョウってけっこー
でっかいよね。
怖いくらい。

Ostrich Slug


砂防対策
されたバルカン
ジェット
ノズル

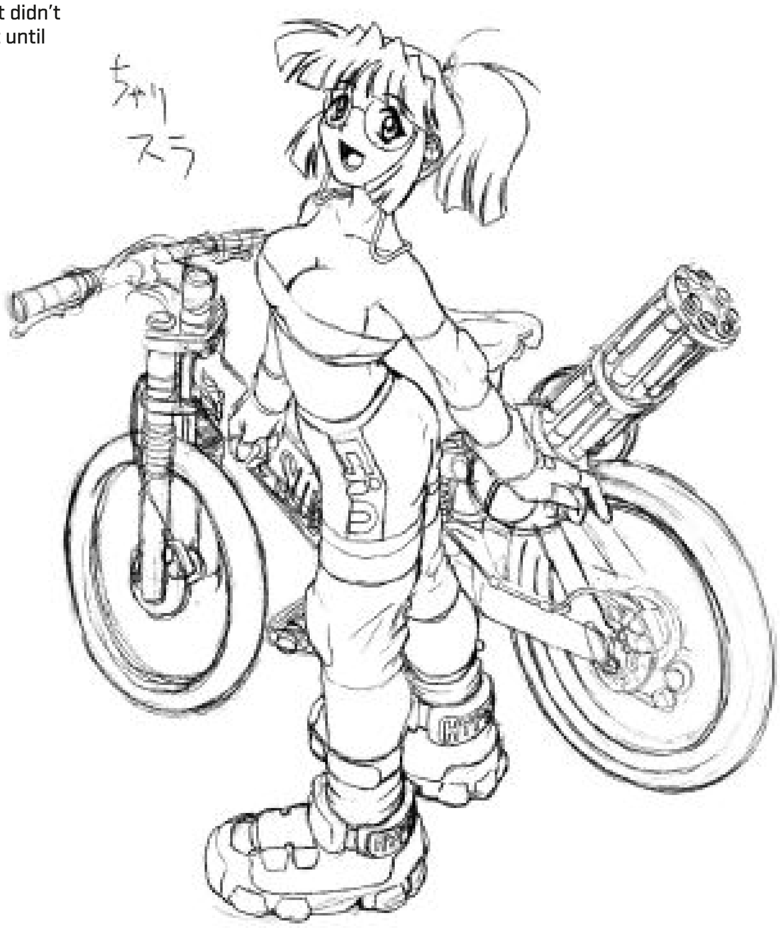
実際に単体で地中に潜る事は
できませんが、高出力ドリルによって
障害物を粉砕する事は可能です。

掘削直径 900mm
有効切削長 4500mm

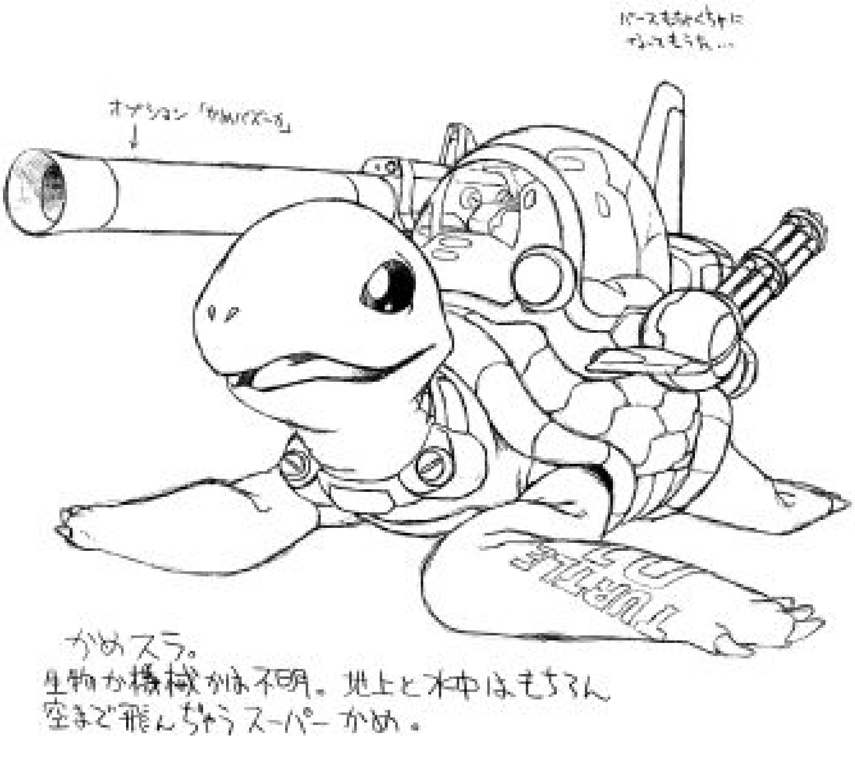
てきとー。

Drill Slug

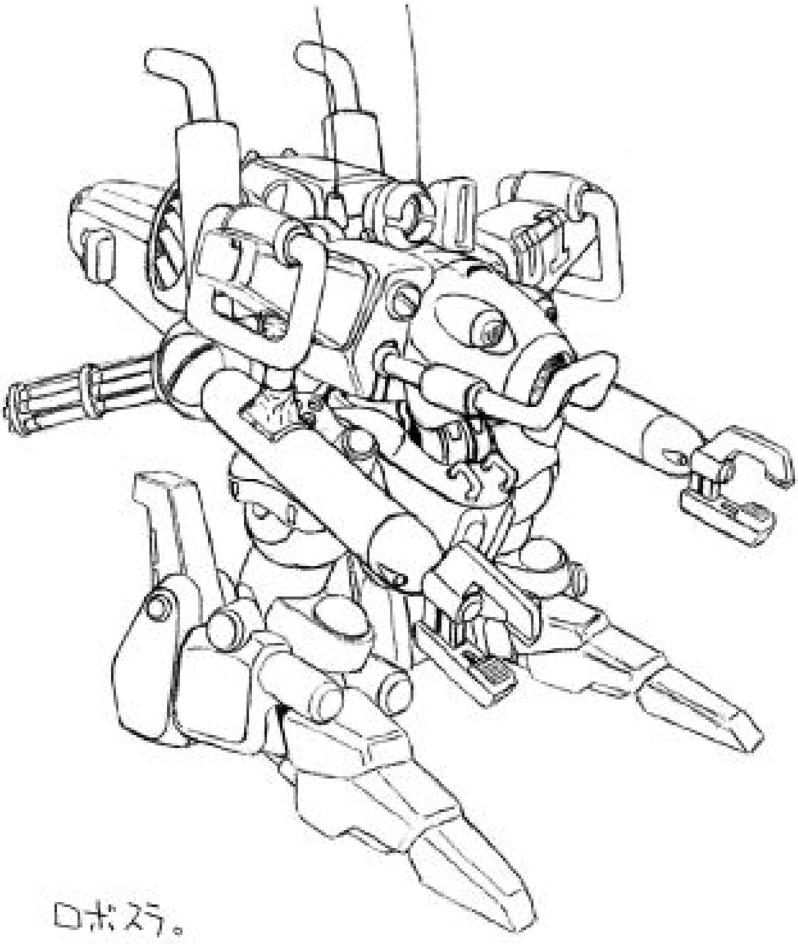
Initial concept art from *Metal Slug 3* shows many Slug designs that didn't make the final game. It wasn't until *Metal Slug 5* that the idea of a 'Car Slug' became a reality.



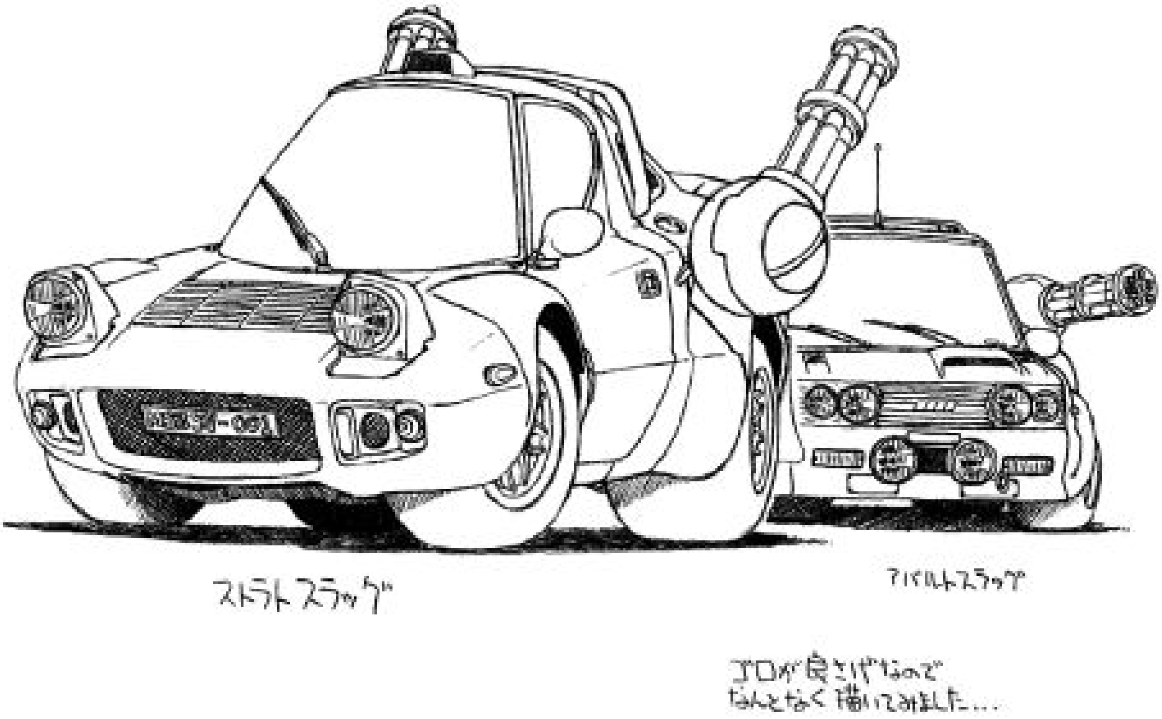
Bicycle Slug


パースもめちゃくちゃに
なってもうた…
オプション「かめバズーカ」
かめスラ。
生物か機械かは不明。地上と水中はもちろん
空まで飛んじゃうスーパーかめ。

Turtle Slug

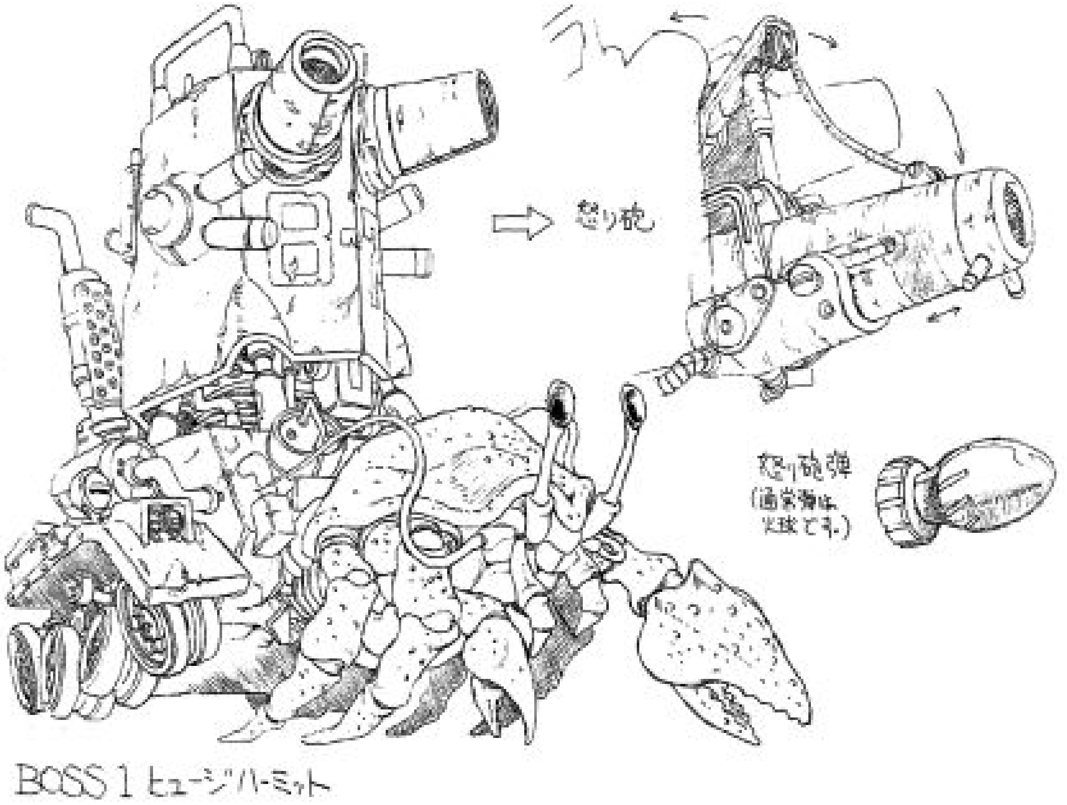


Slug Armour

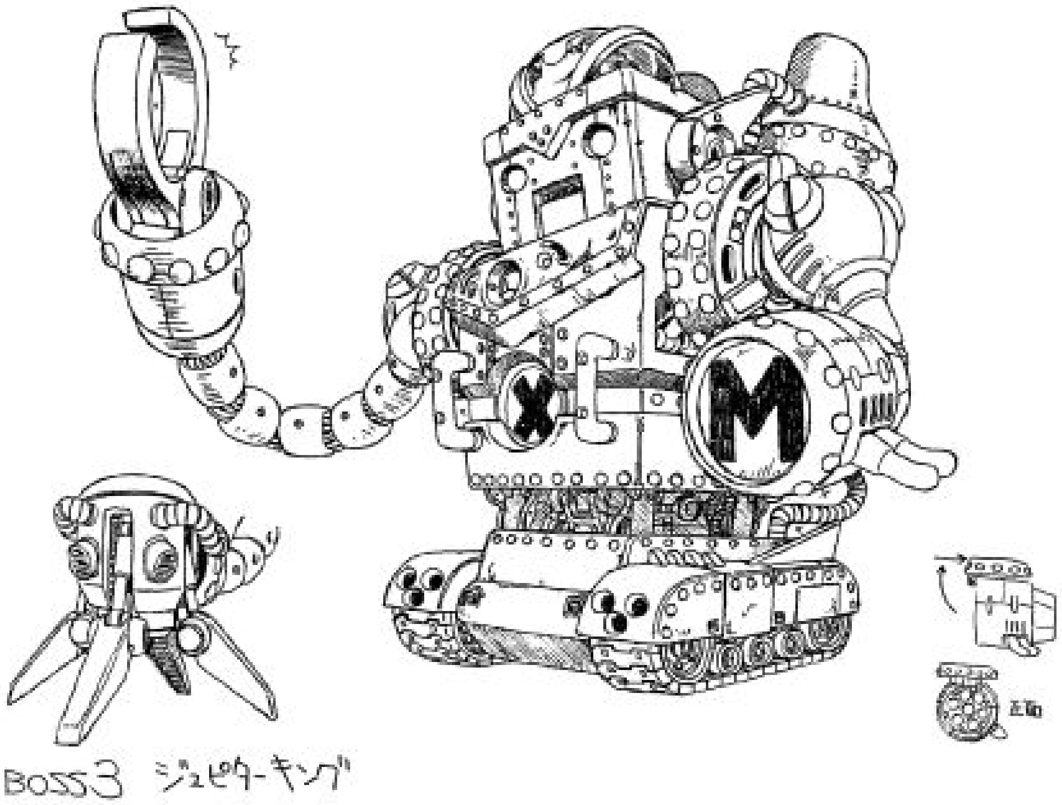

ストラトスラッグ
アバルトスラッグ
ゴロが良さげなので
なんとなく描いてみました…

Stratoslug (left) and Abarth Slug (right)

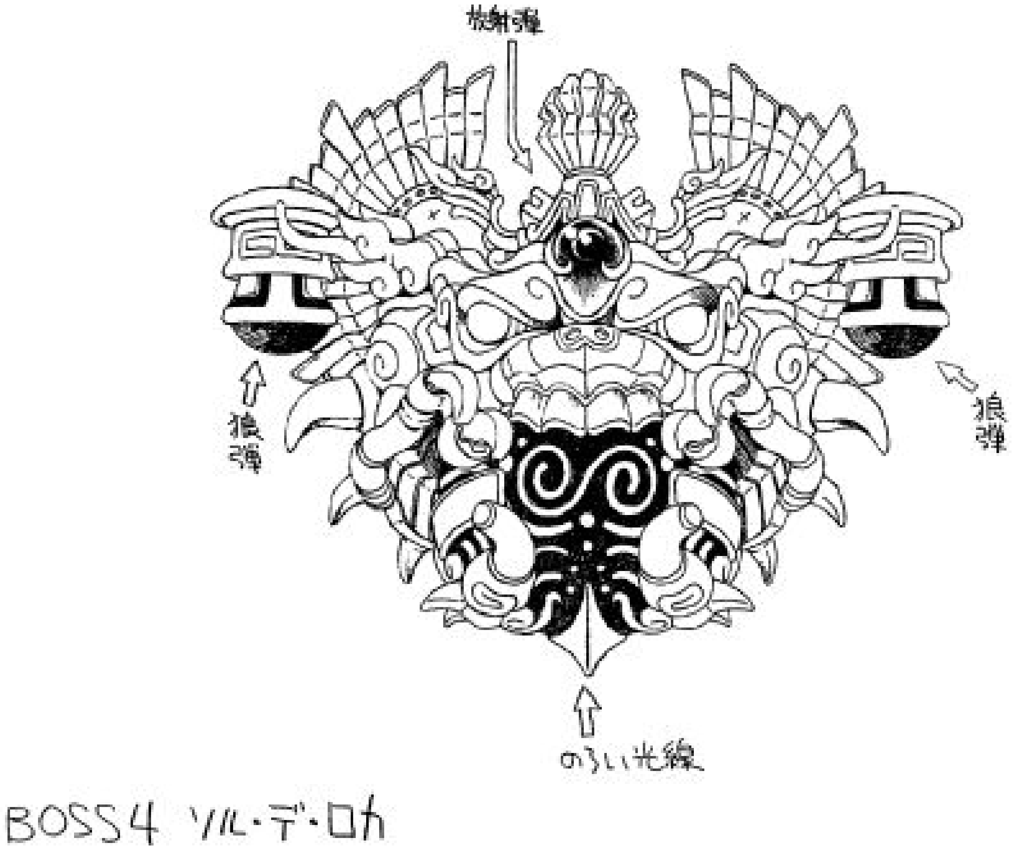
The branching pathways in *Metal Slug 3* mean that there are more than ten bosses, with the final one being the huge Martian named Rootmars.


ゴン
怒り砲
怒り砲弾
(通常弾は
火球です。)
BOSS 1 ヒュージハーミット

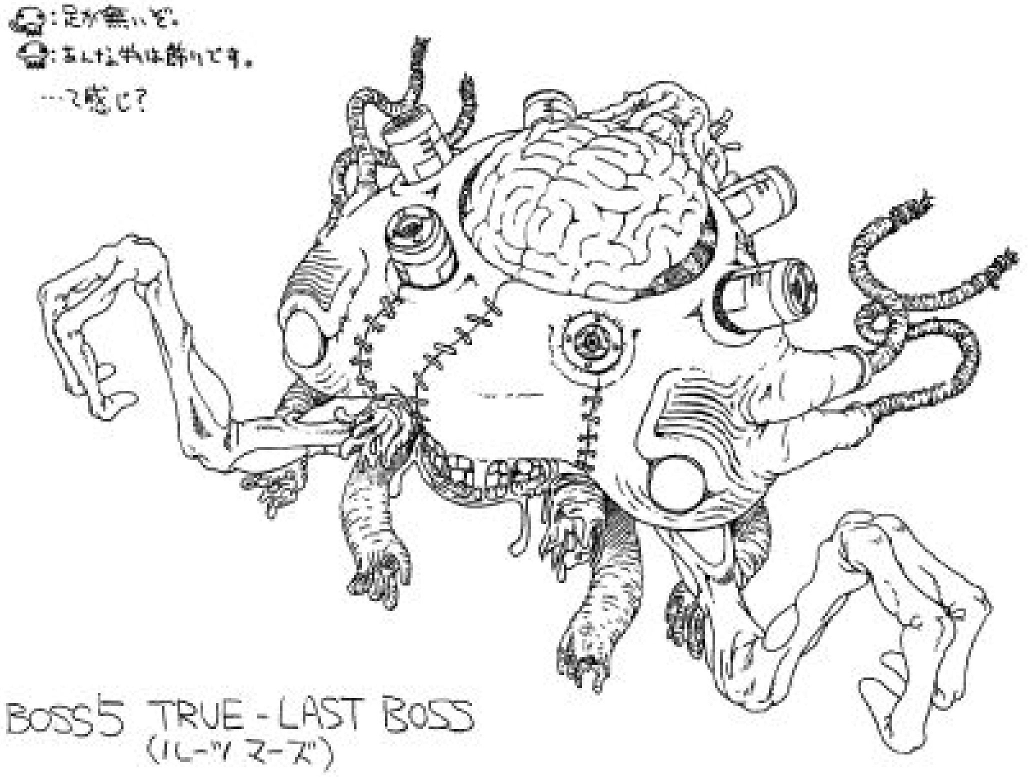
Huge Hermit (Mission 1 boss)


M
正面
BOSS3 ジュピターキング

Jupiter King (Mission 3 boss)


放射弾
狼弾
狼弾
のろい光線
BOSS4 ソル・デ・ロカ

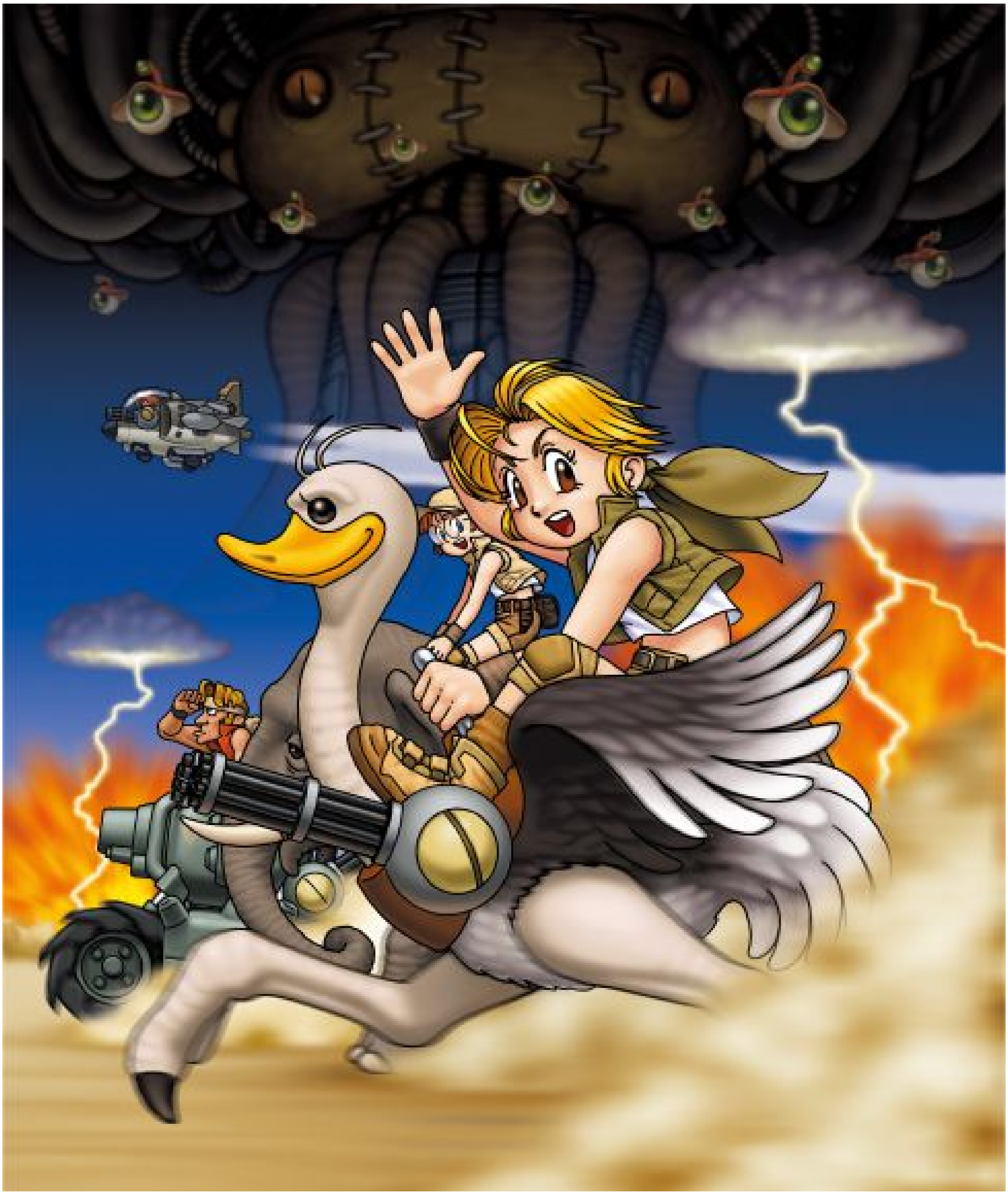
Sol Dae Rokker (Mission 4 boss)


：足が無いぞ。
：あんな物は飾りです。
…って感じ？
BOSS5 TRUE-LAST BOSS
(ルーツマーズ)

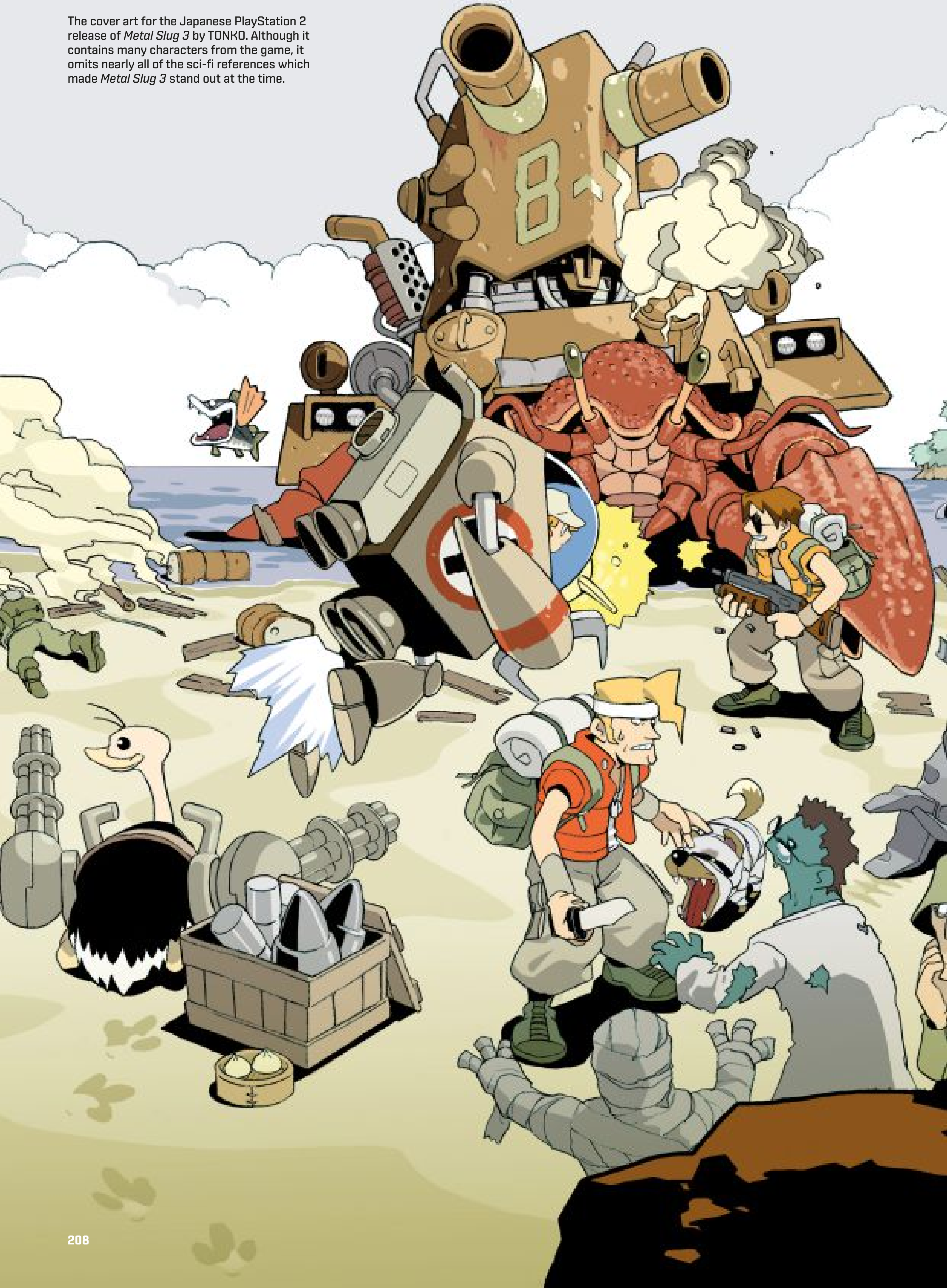
Rootmars (Final Mission boss)

Left: Following on from *Metal Slug X*, artist Shinkiro is on hand again for the *Metal Slug 3* NEOGEO cover art. This presents an eye-catching mash-up of sci-fi, fantasy and military themes.

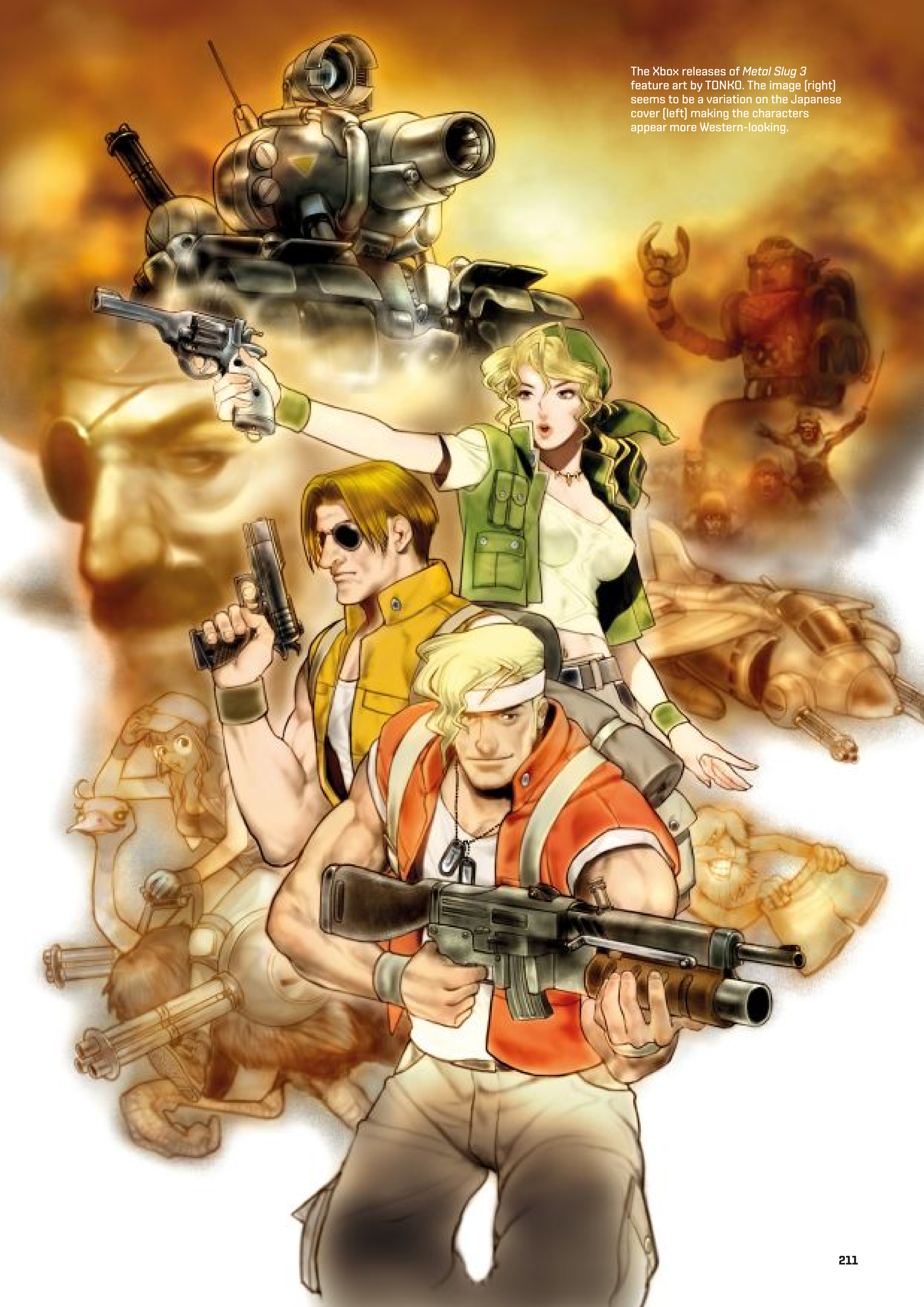
Below: An illustration created for the cover of a magazine and also used in the game's manual. It shows Marco, Fio and Eri each riding a different Slug from *Metal Slug 3*. Rootmars, the game's final boss, lurks menacingly in the background.



The cover art for the Japanese PlayStation 2 release of *Metal Slug 3* by TONKO. Although it contains many characters from the game, it omits nearly all of the sci-fi references which made *Metal Slug 3* stand out at the time.

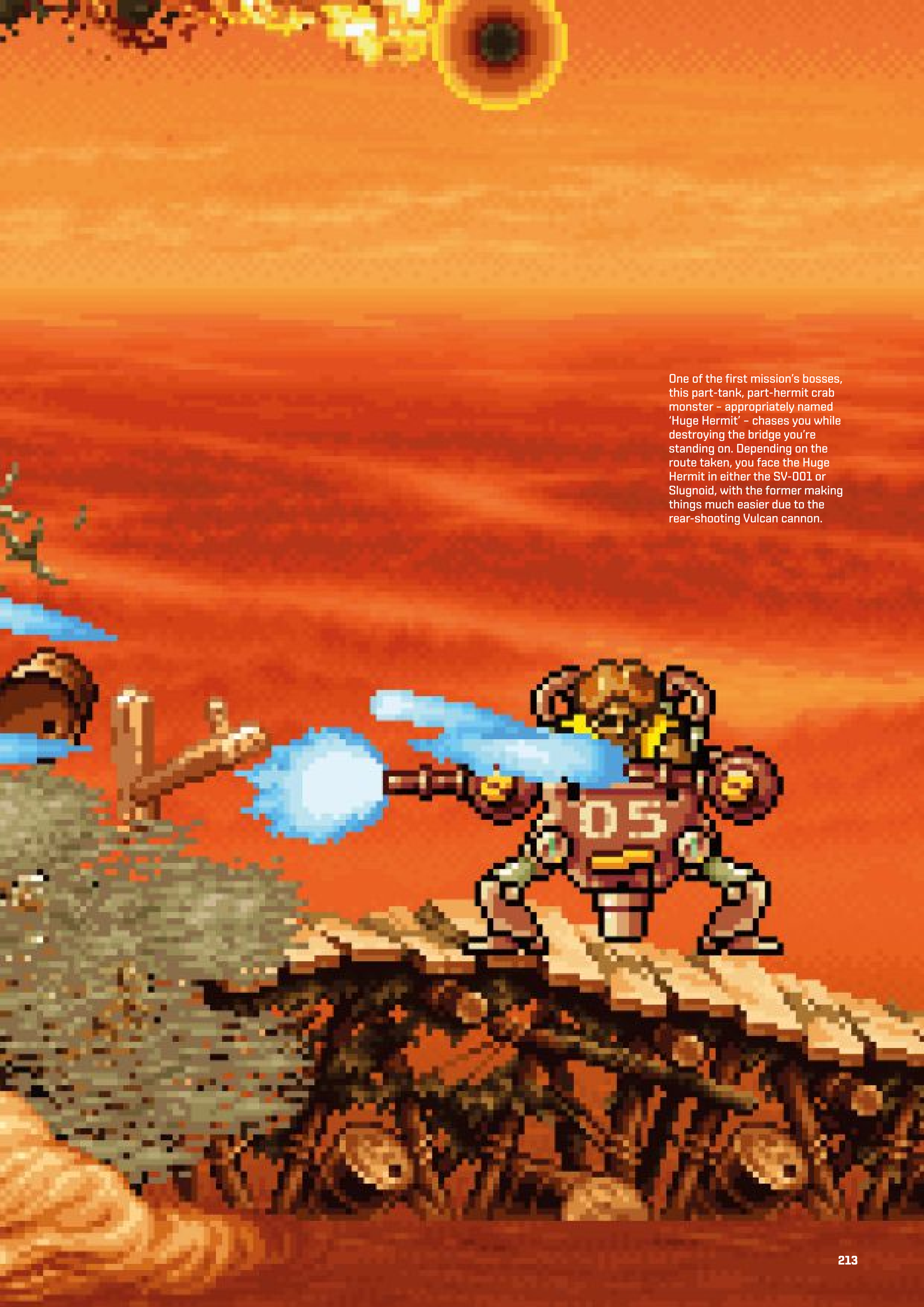


07

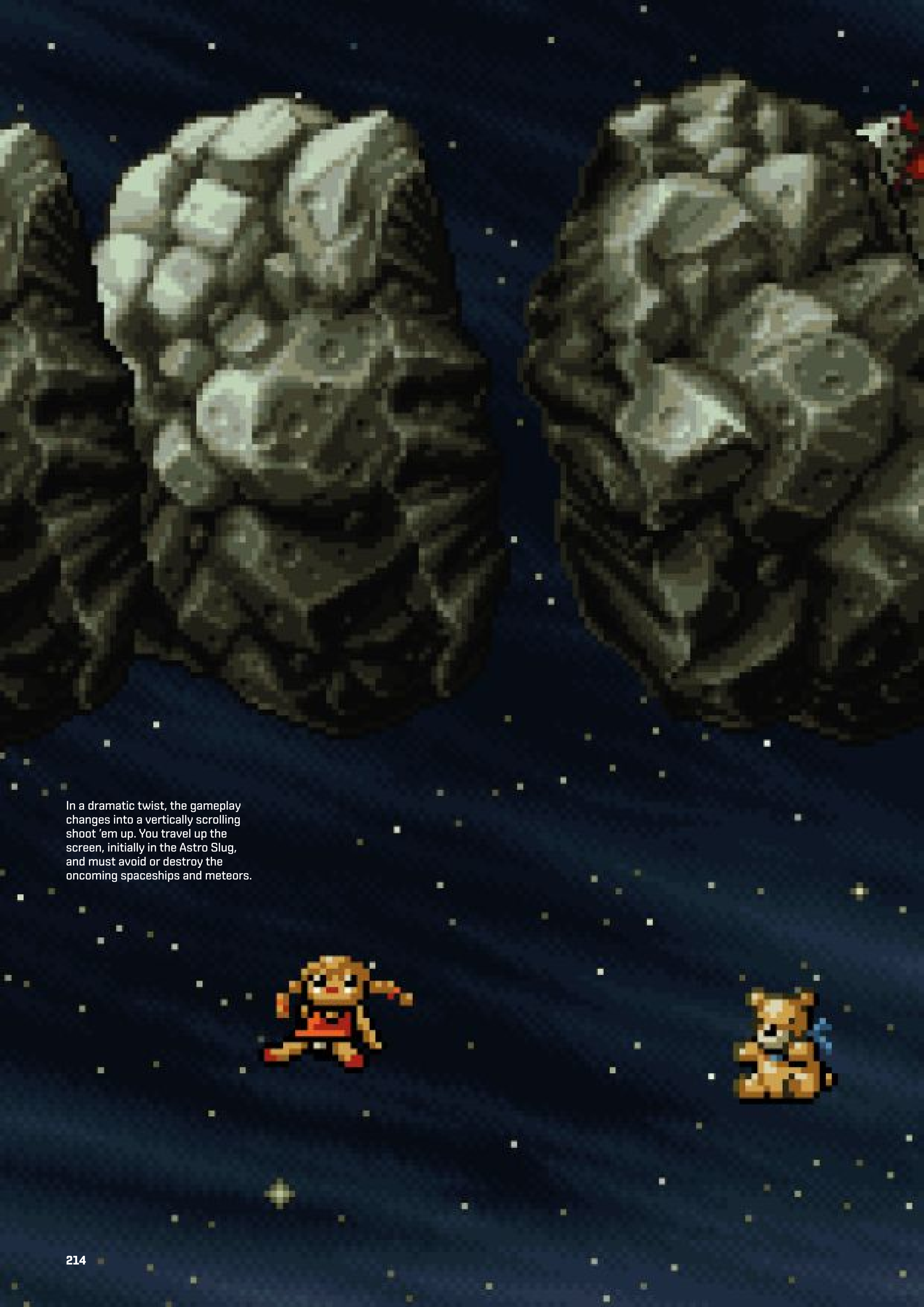


The Xbox releases of *Metal Slug 3* feature art by TONKO. The image (right) seems to be a variation on the Japanese cover (left) making the characters appear more Western-looking.

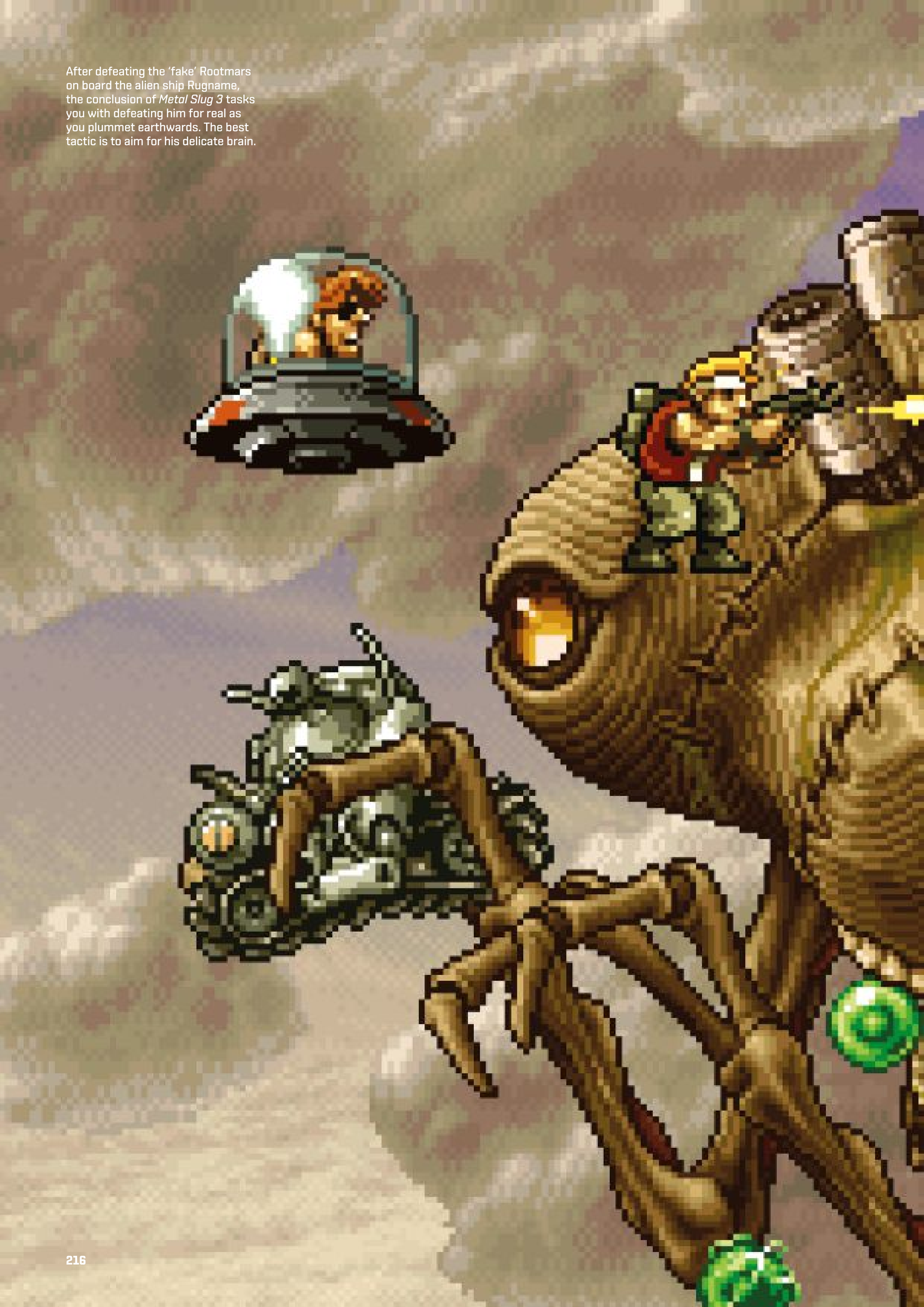
8-7



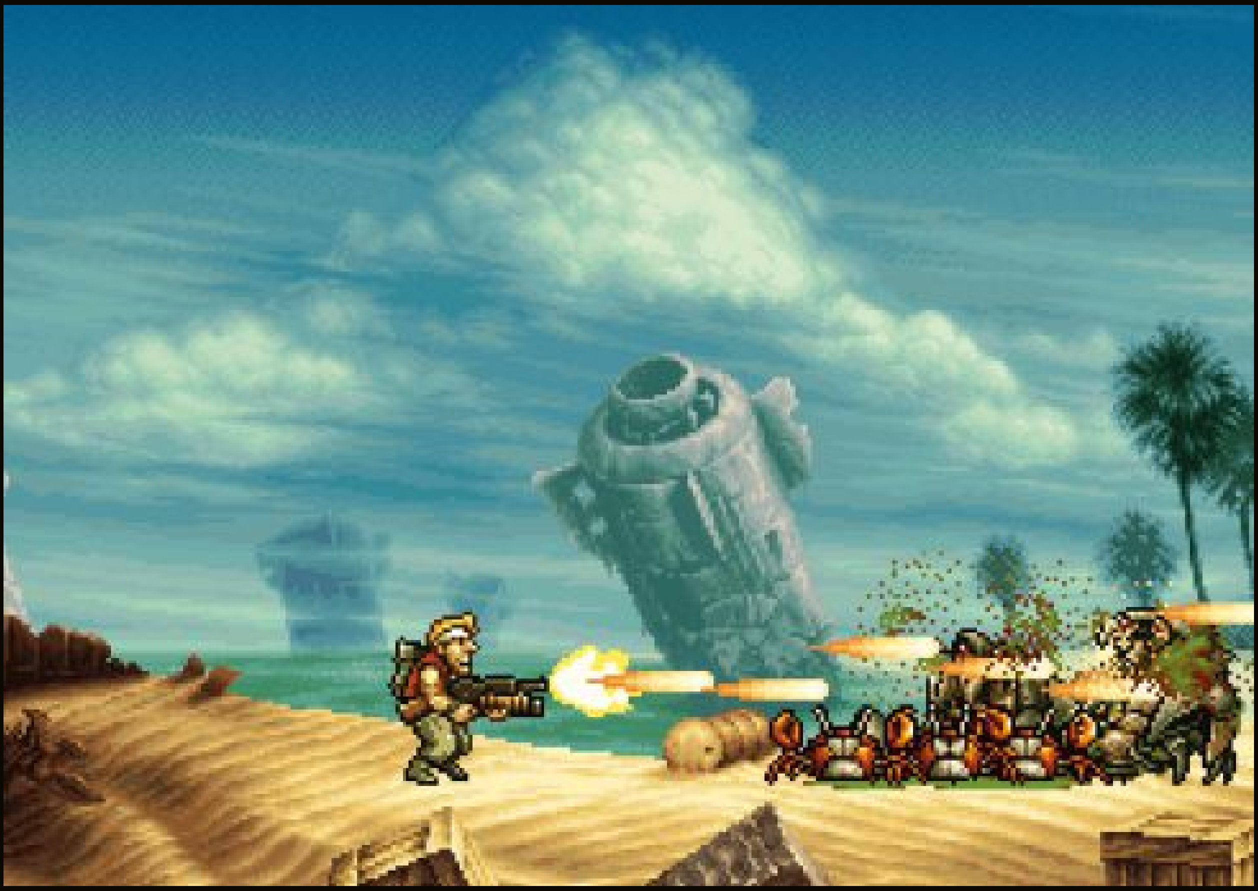
One of the first mission's bosses, this part-tank, part-hermit crab monster – appropriately named 'Huge Hermit' – chases you while destroying the bridge you're standing on. Depending on the route taken, you face the Huge Hermit in either the SV-001 or Slugnoid, with the former making things much easier due to the rear-shooting Vulcan cannon.



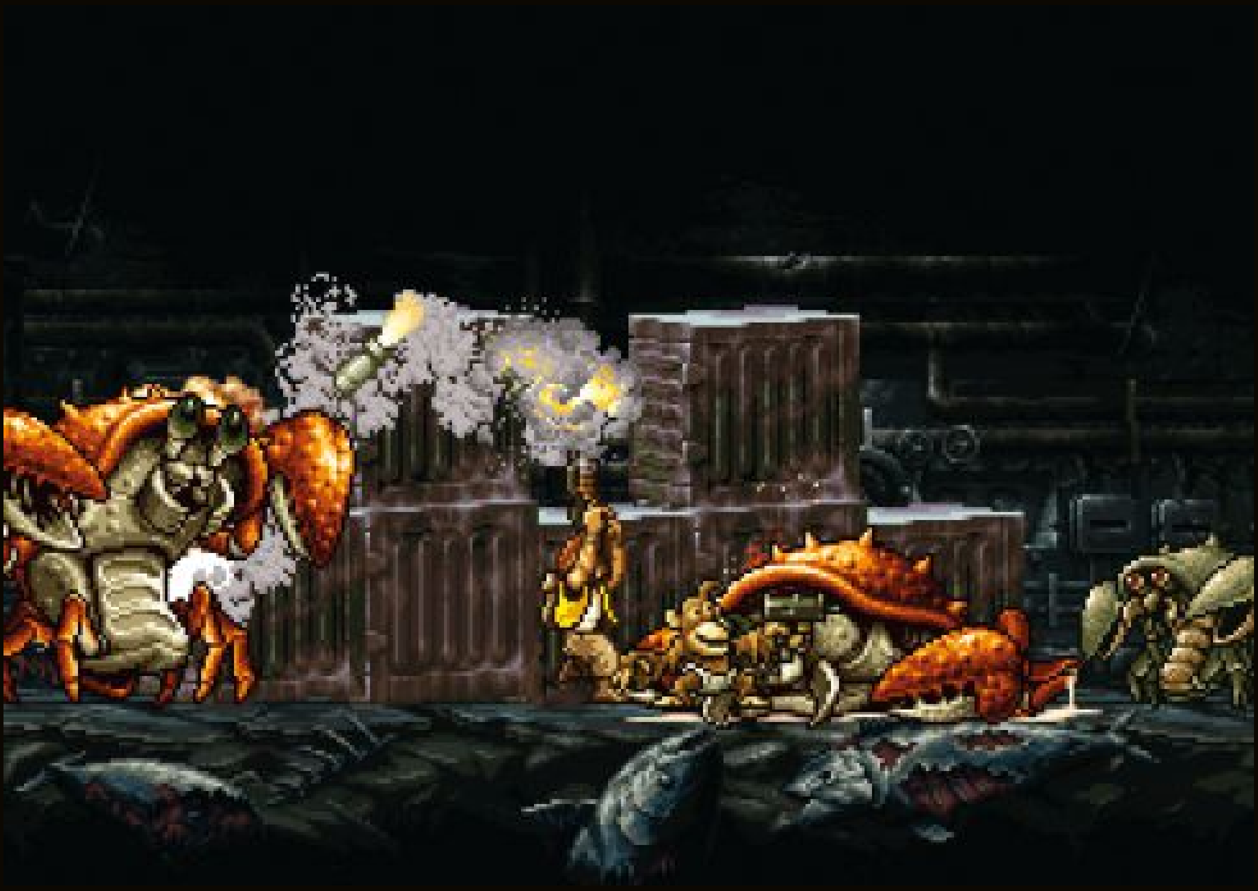
In a dramatic twist, the gameplay changes into a vertically scrolling shoot 'em up. You travel up the screen, initially in the Astro Slug, and must avoid or destroy the oncoming spaceships and meteors.



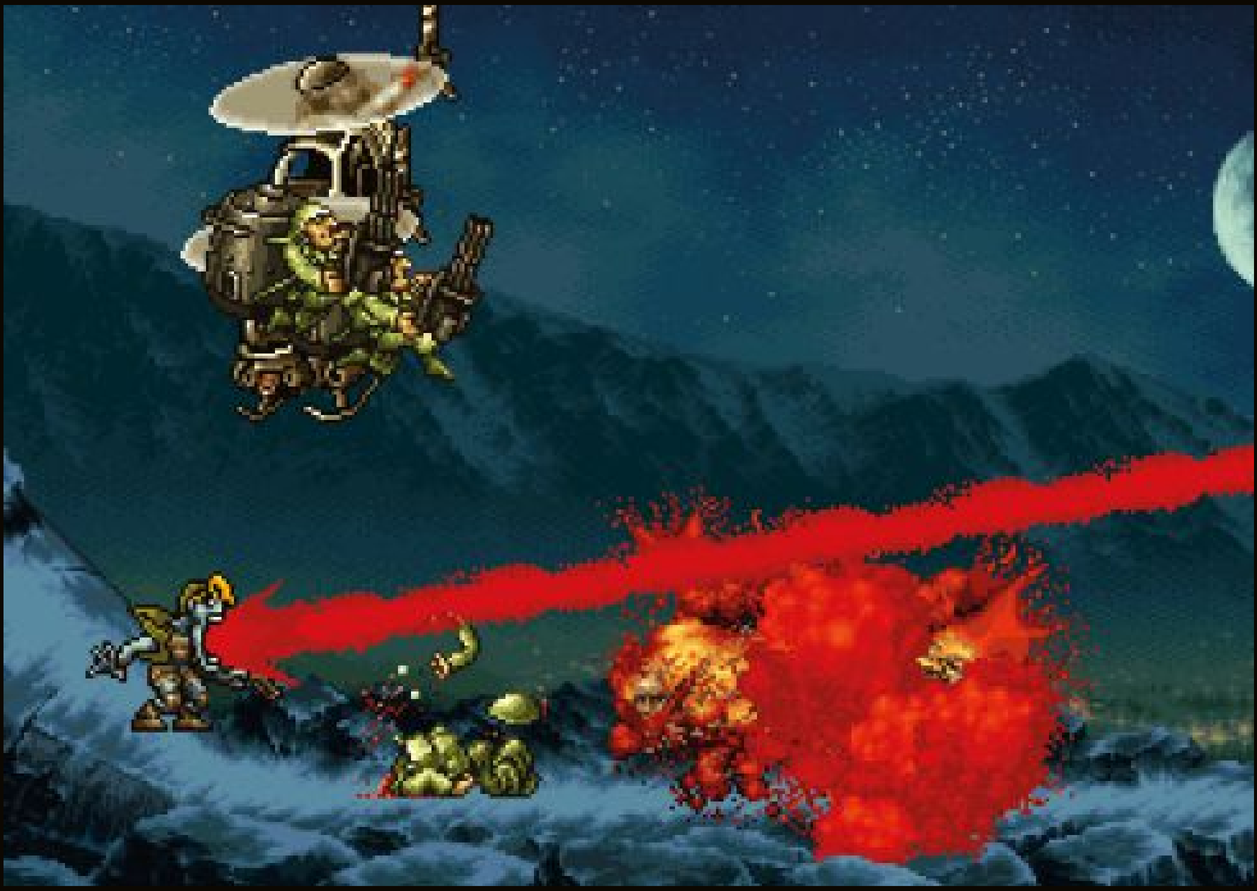
After defeating the 'fake' Rootmars on board the alien ship Rugname, the conclusion of *Metal Slug 3* tasks you with defeating him for real as you plummet earthwards. The best tactic is to aim for his delicate brain.



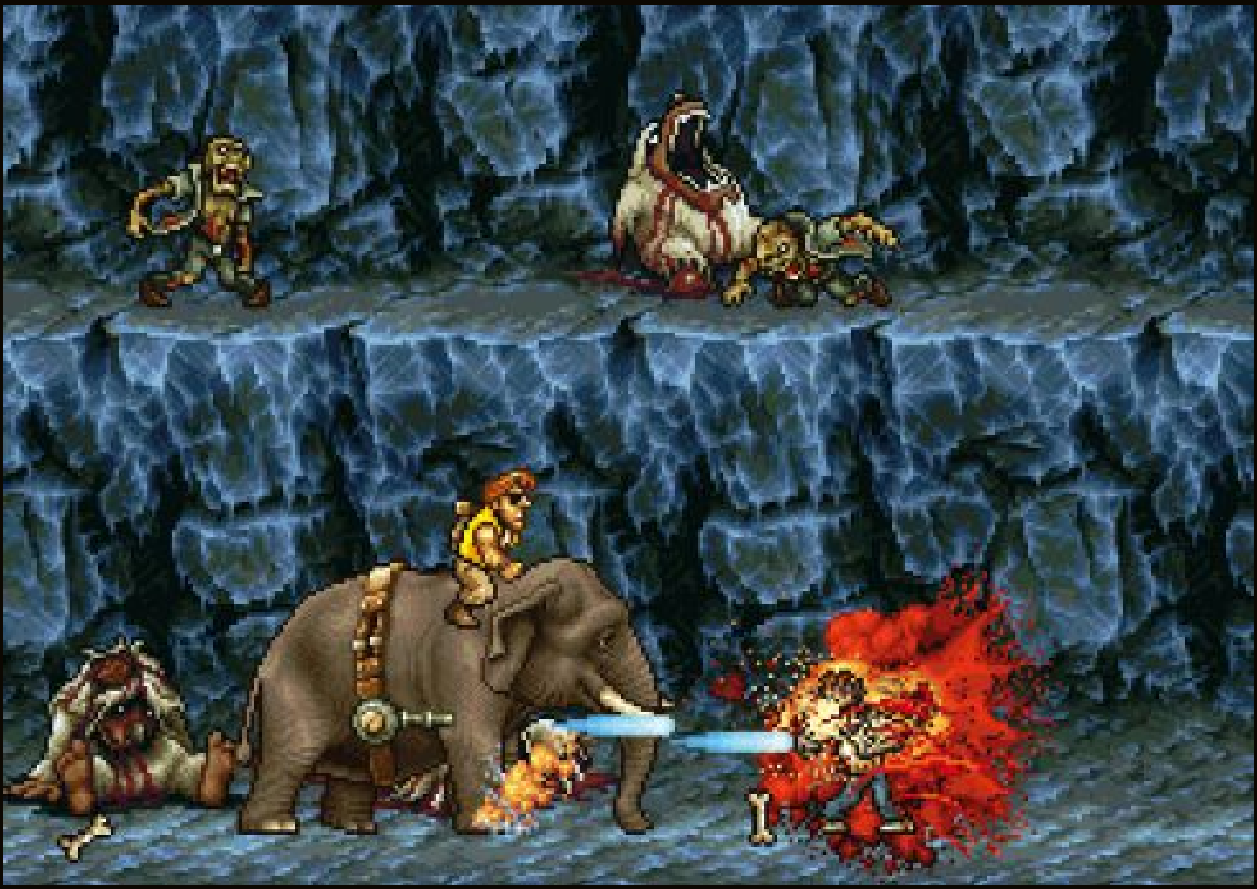
The opening scene sees you venture onto the beach, where a grim tone is instantly set by mutated hermit crabs and derelict spaceships in the background.



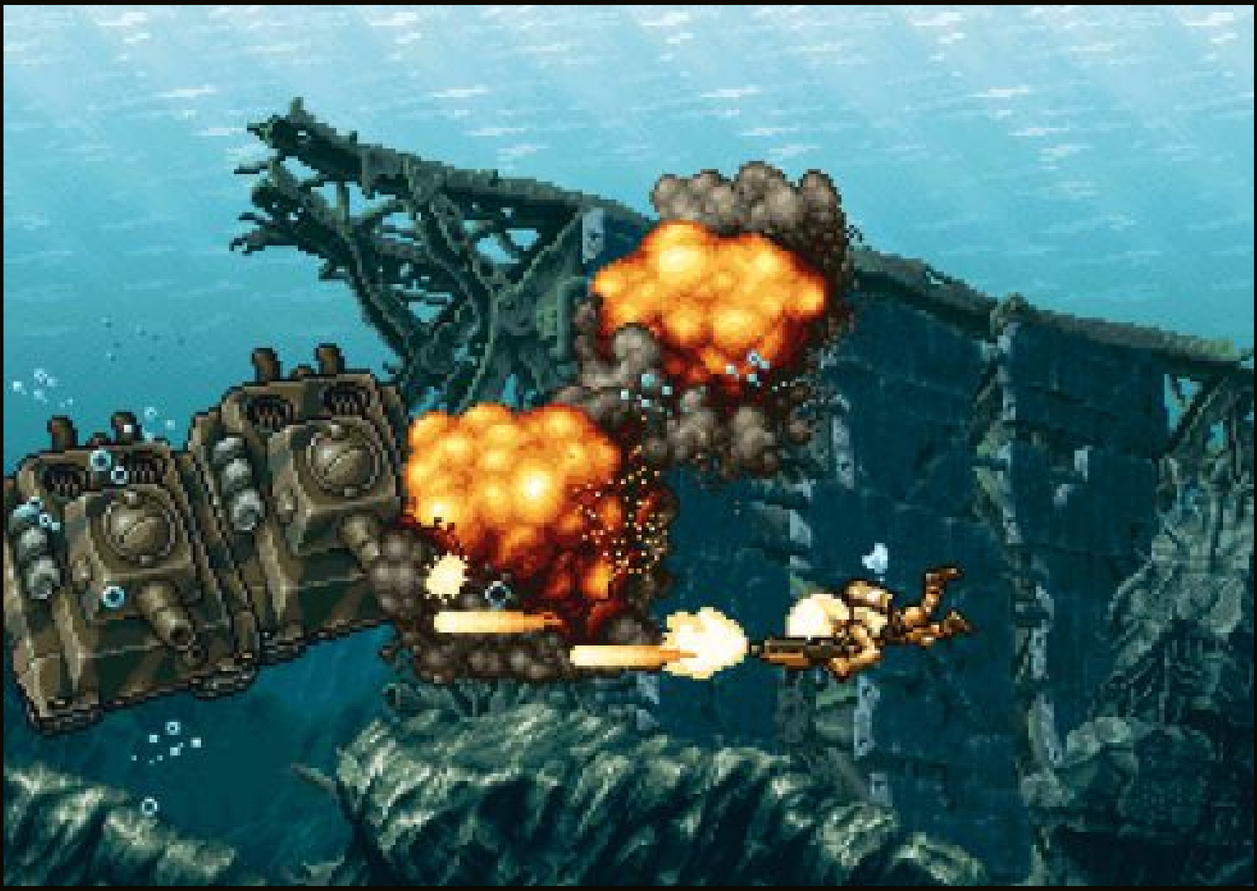
The Ohumein-Conga mutated crabs are mini-bosses during the first mission; beware of their acid bubbles and pincer claw attacks. Note Utan the monkey also helping you out in this battle.



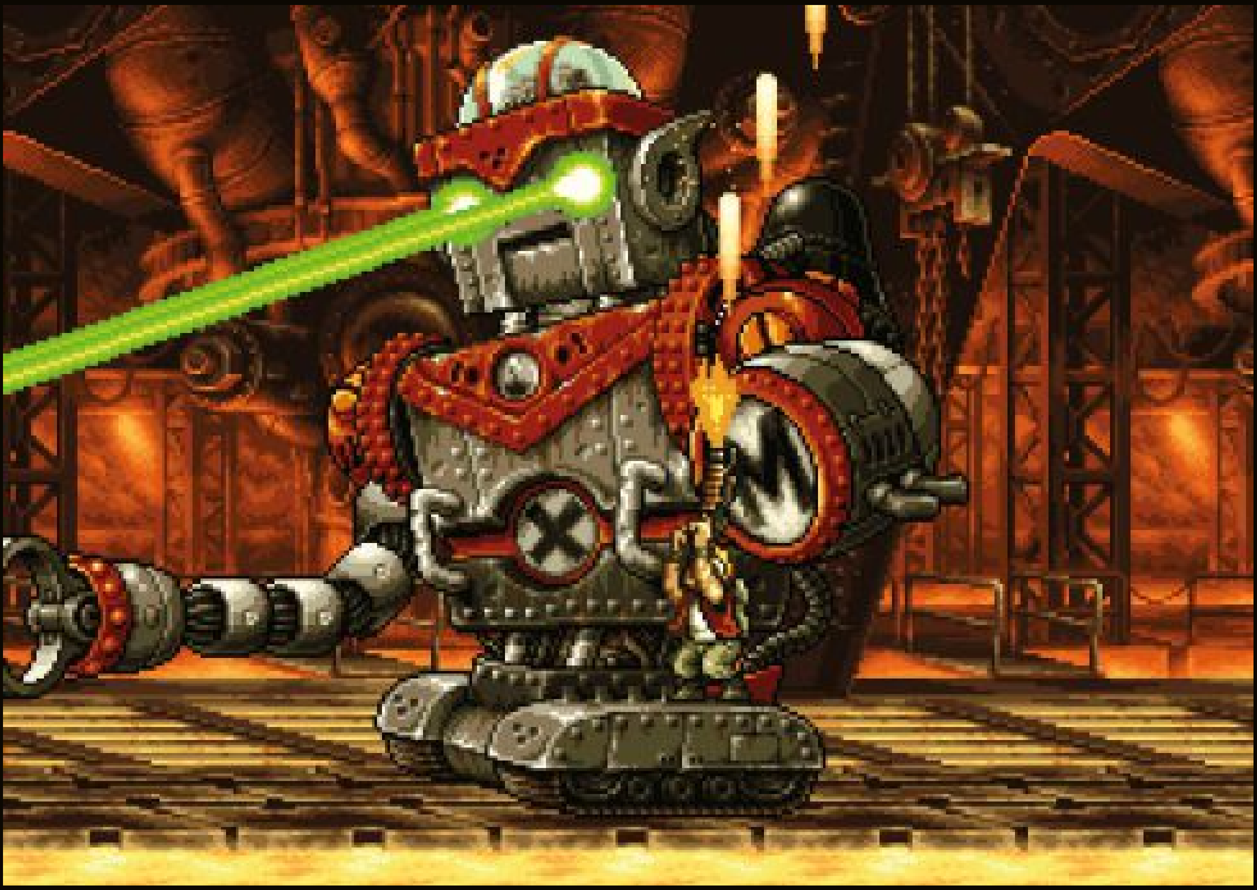
One of the most iconic moments in *Metal Slug 3* is when you first witness the gruesome Zombie Transformation. Once infected, your movement is much slower, but your secondary attack is a stream of blood vomit that kills everything it touches.



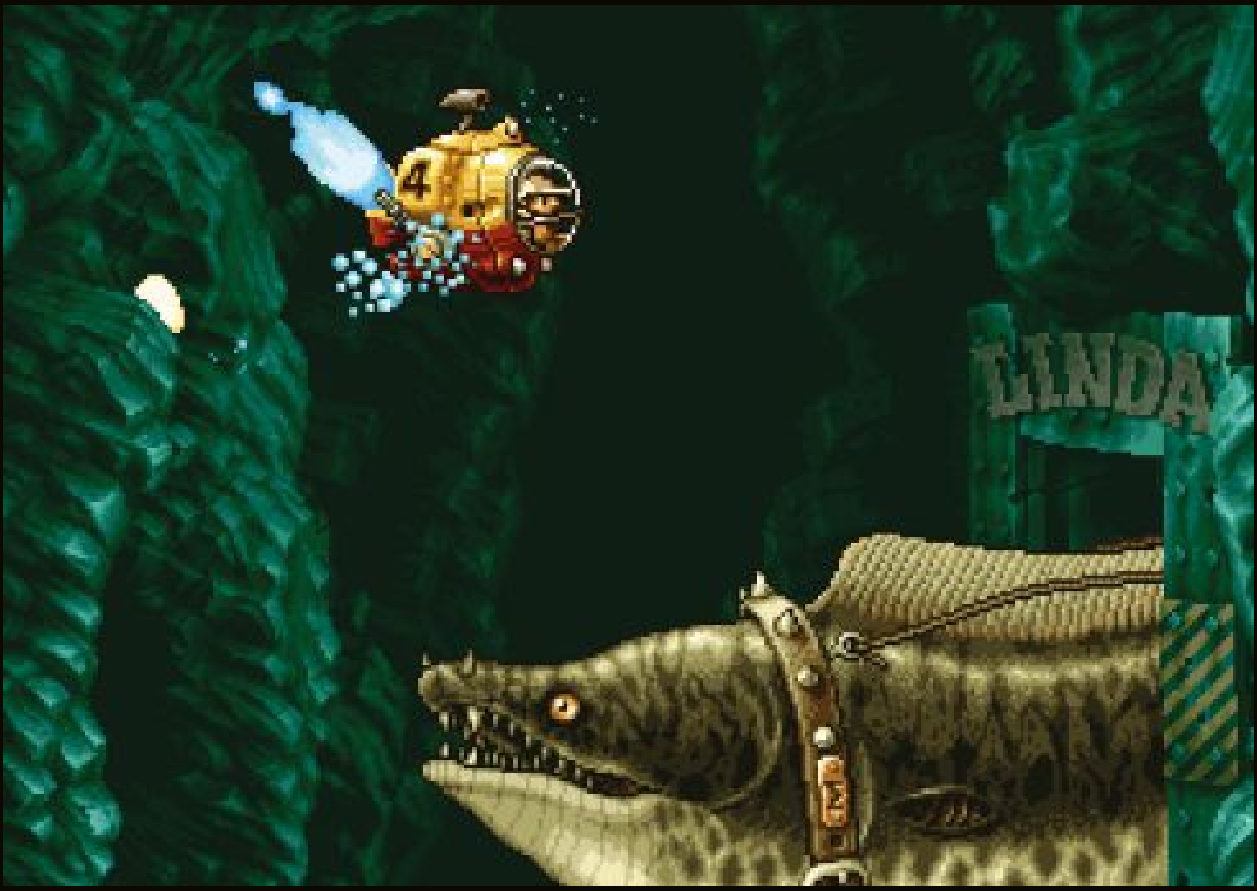
Although slow, the Elephant Slug's height offers protection from gunfire. Consuming objects can create extra attacks – for example, eating chillies makes the elephant breathe fire!



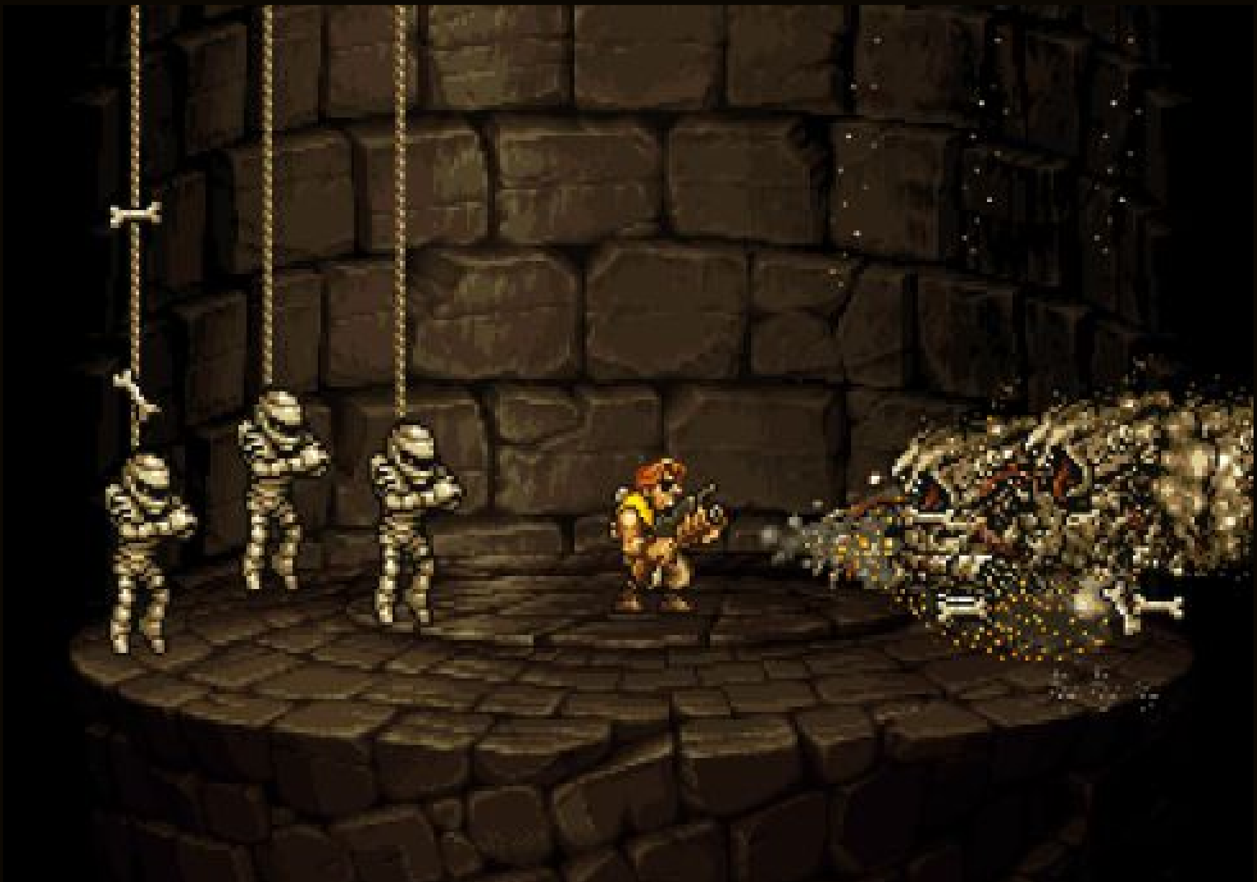
In a scene reminiscent of Irem's *In the Hunt*, you find yourself underwater, surrounded by wreckage and falling tanks.



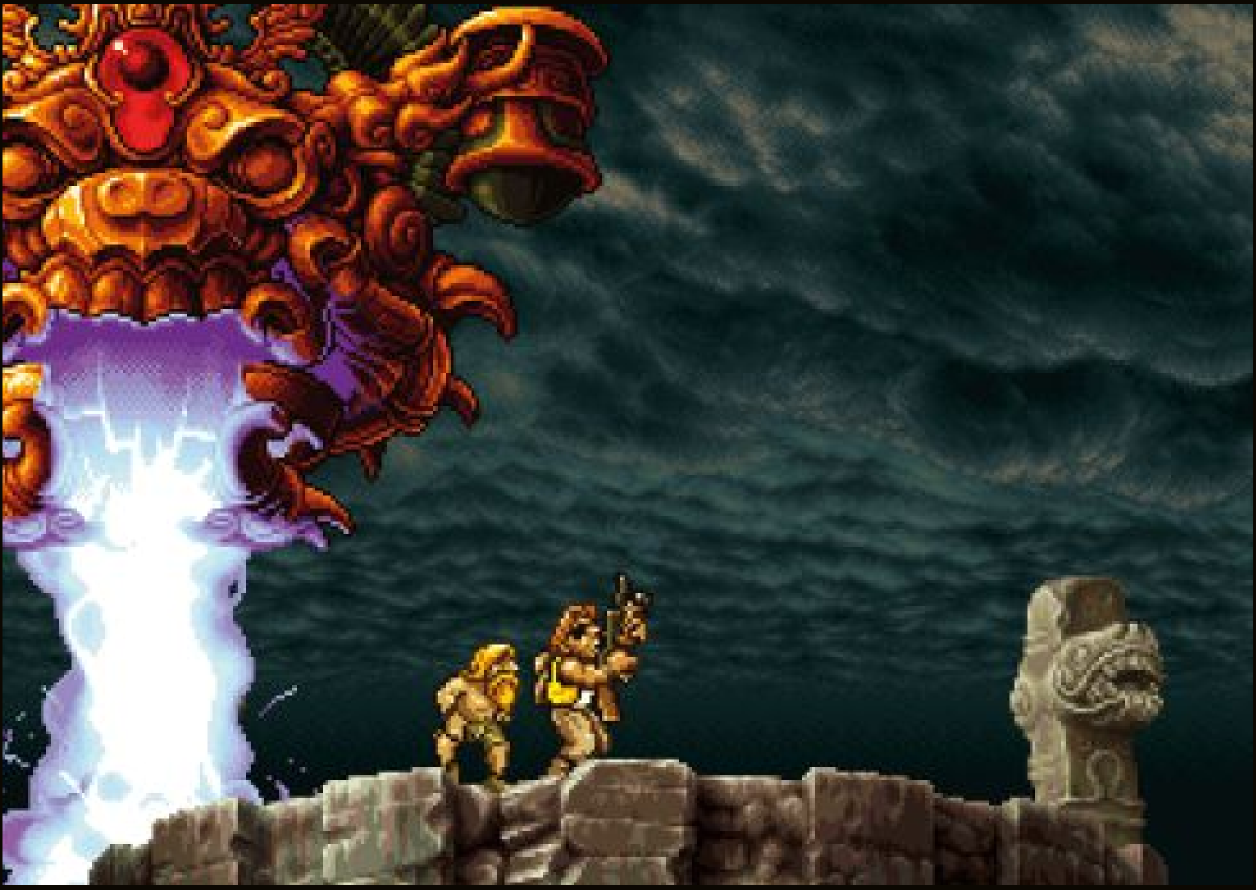
Jupiter King, the huge mechanical robot, is the third mission boss from *Metal Slug 3*. Its head is its weak spot, but hitting your target is easier said that done as you need to avoid its claw and vaporising eye lasers.



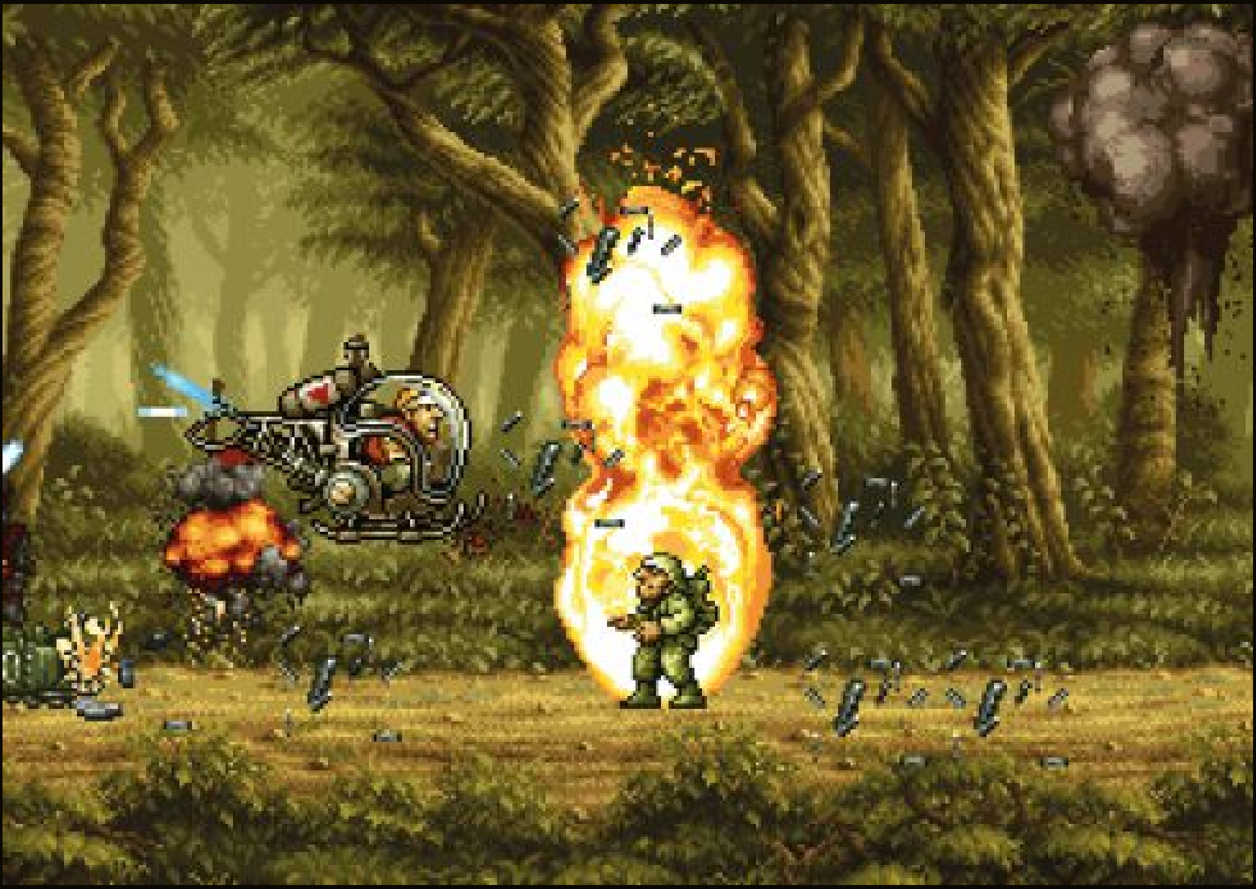
First seen in *Metal Slug 3*, the Slug Mariner makes underwater travel much easier. In this section, you have to avoid the huge moray eels, incongruously named Helen, Linda, Jenny and Barbie.



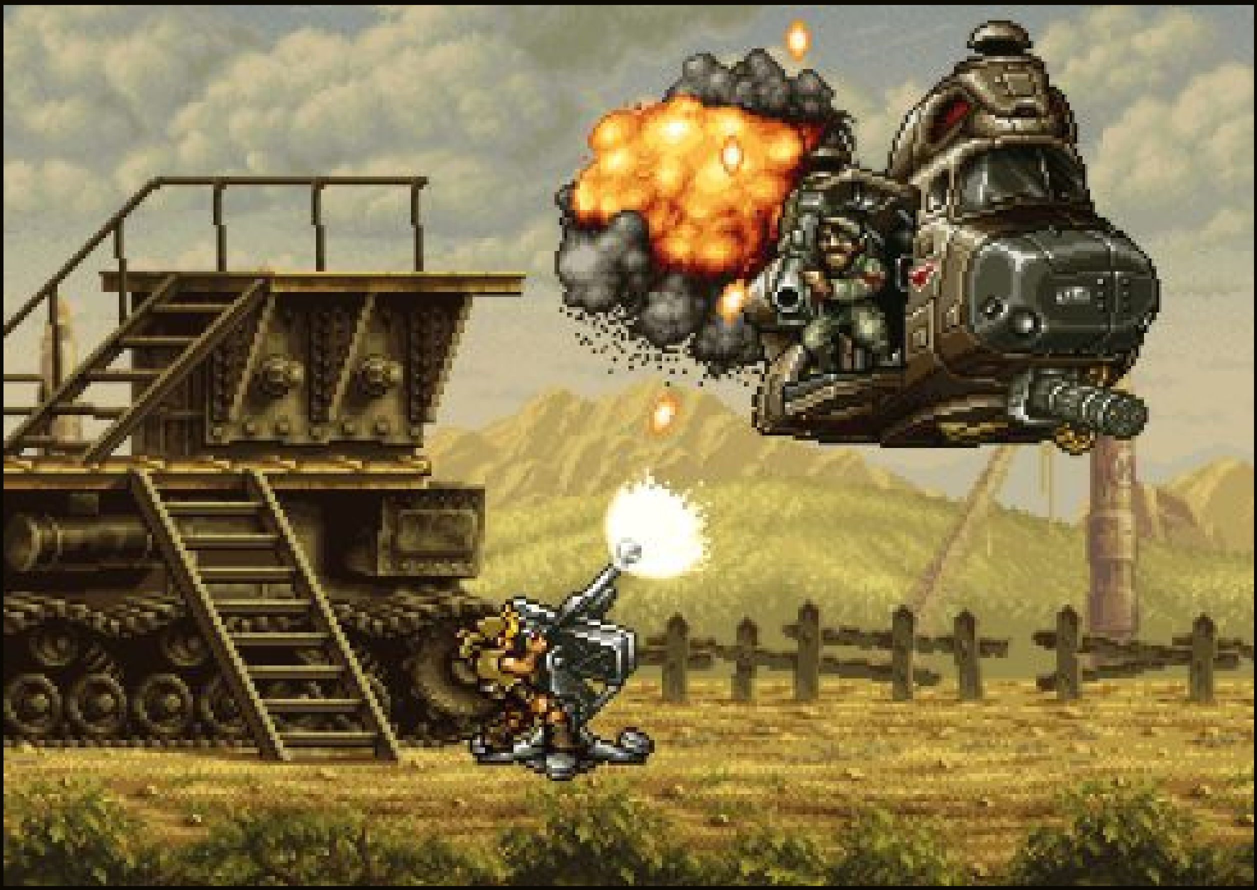
Similar to *Metal Slug 2/X*, mummies appear in this section of *Metal Slug 3*. In this scene, the mummies are coming at you in large numbers; thankfully, one blast of your trusty shotgun causes bones and body parts to fly across the screen.



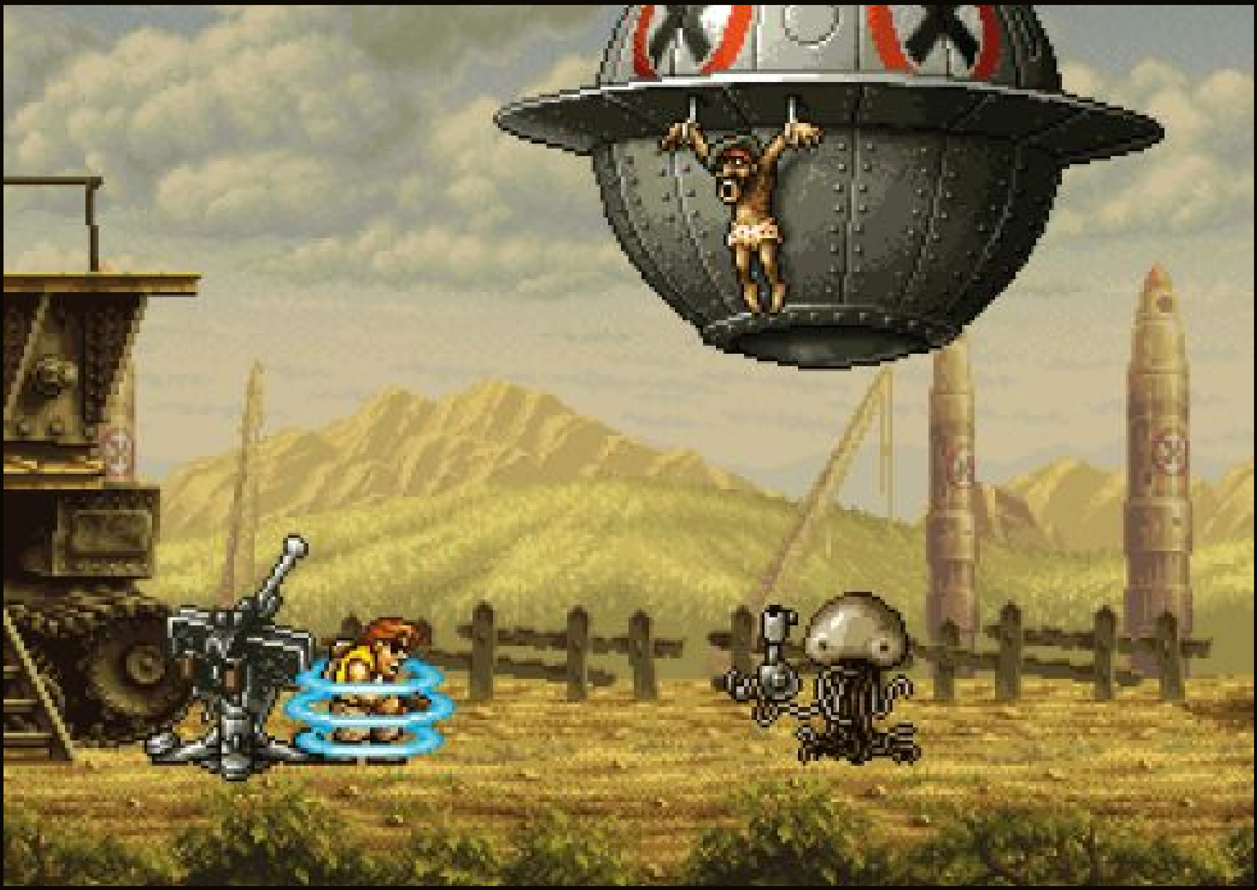
The Sol Dae Rokker is a mythical enemy inspired by Aztec and Mayan folklore. Its main attack is a huge purple beam that turns you into a pile of coins if it makes contact.



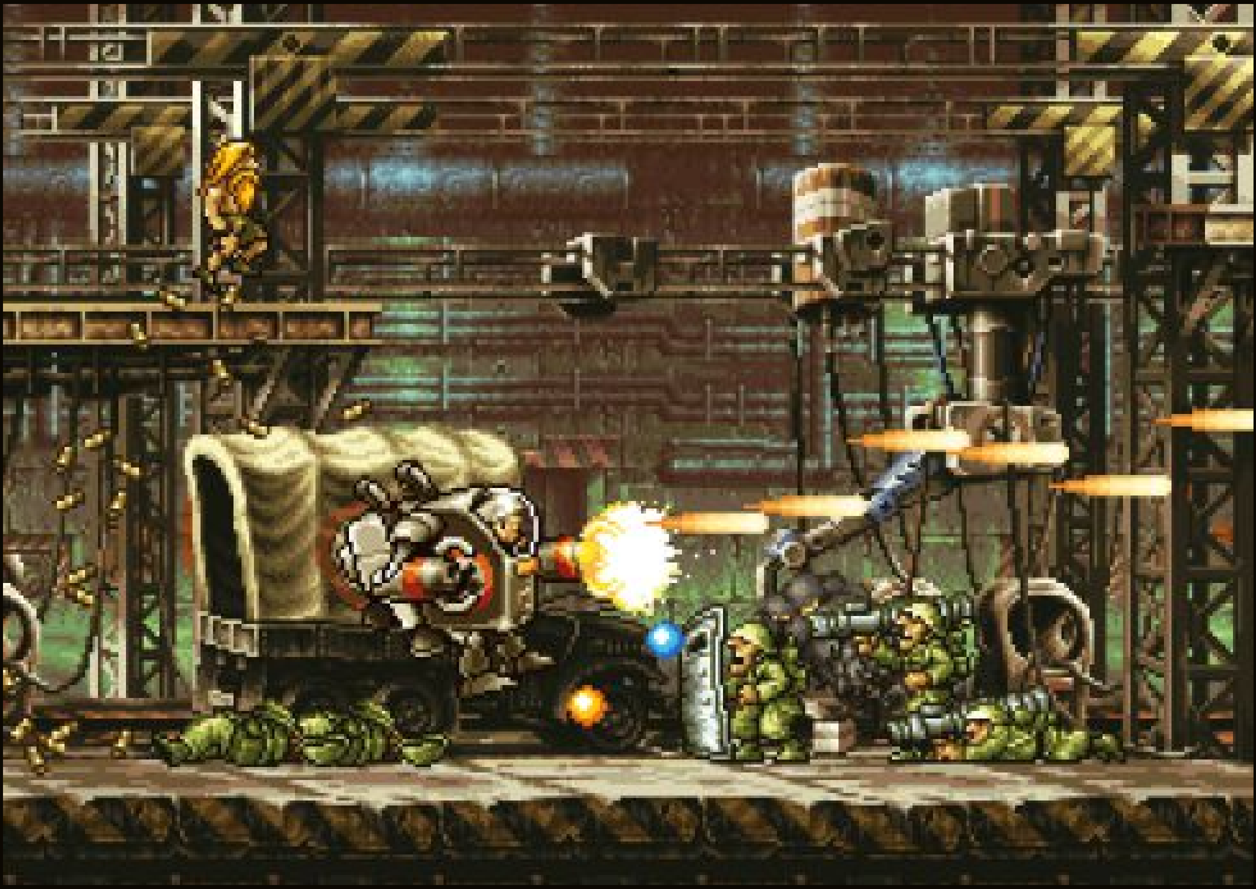
The Slug Copter is armed with 360° Vulcan cannons and can also drop bombs on targets below. Its design is heavily inspired by the Bell 47 military helicopter.



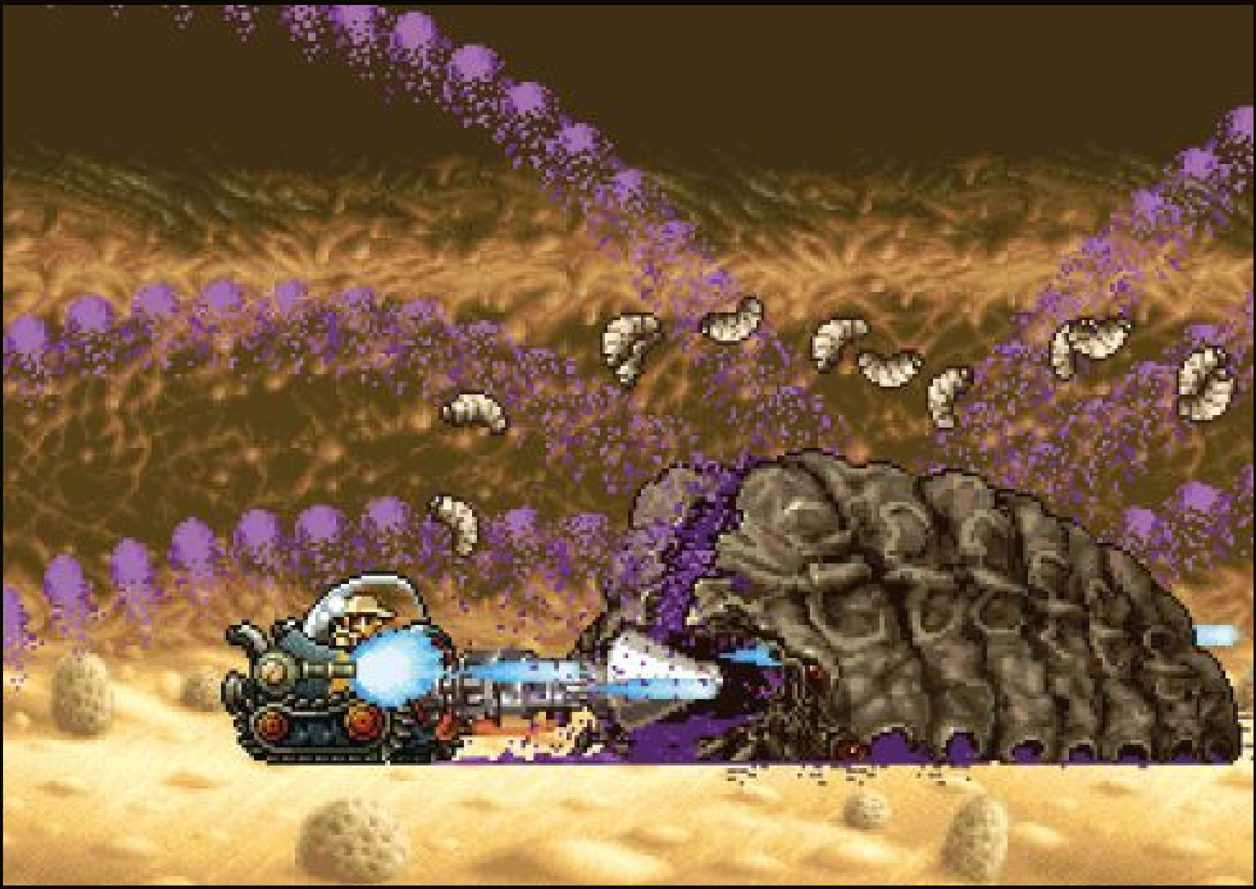
Originally seen as the final boss in *Metal Slug 1*, the Hi-Do is a mini-boss in the final mission of *Metal Slug 3*. All is not what it seems though, as [spoiler alert] Morden is actually a Mars Person in disguise.



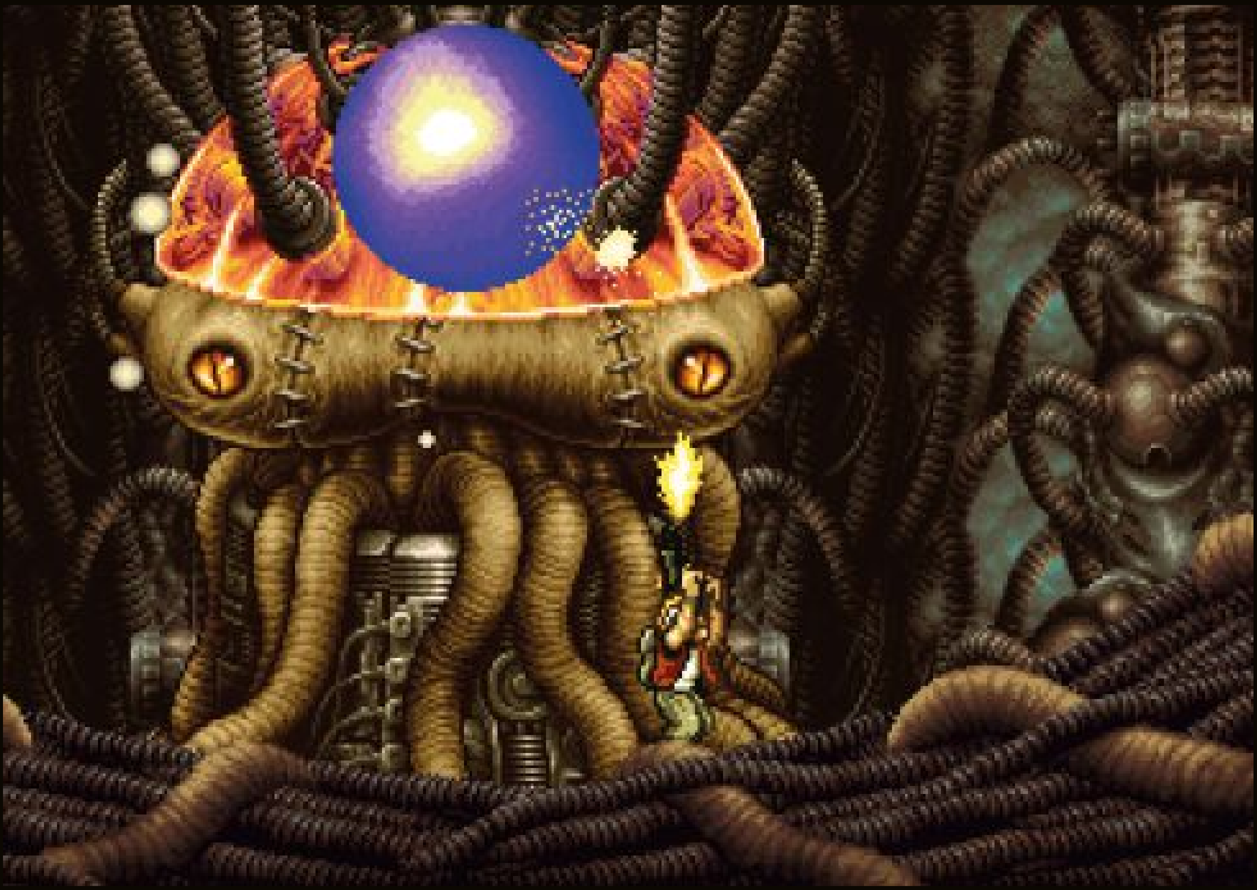
Just when you think you've defeated General Morden, it's revealed that he is, in fact, a Mars Person in disguise, and that the real Morden has been kidnapped.



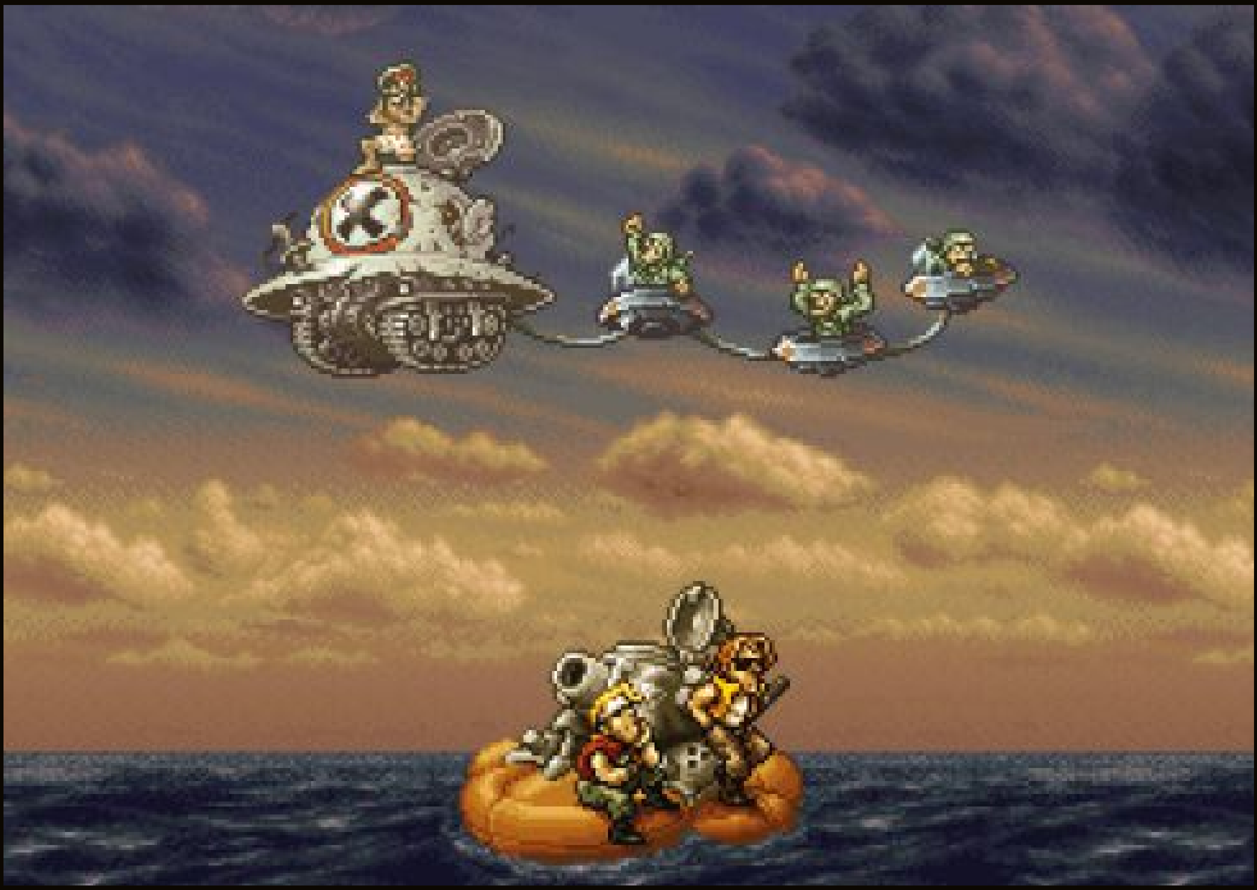
Reminiscent of the Slugnoid, the LV Armour is a mechanical walking suit. It offers great protection from enemy projectiles as well as ample firepower – one of its claws is a cannon and the other can be equipped with a standard pick-up weapon.



Another *Metal Slug 3* first, The Drill Slug may move slowly, but it has a power drill that's activated when it comes into contact with an enemy, causing considerable damage. This is particularly effective against these Giant Caterpillars!

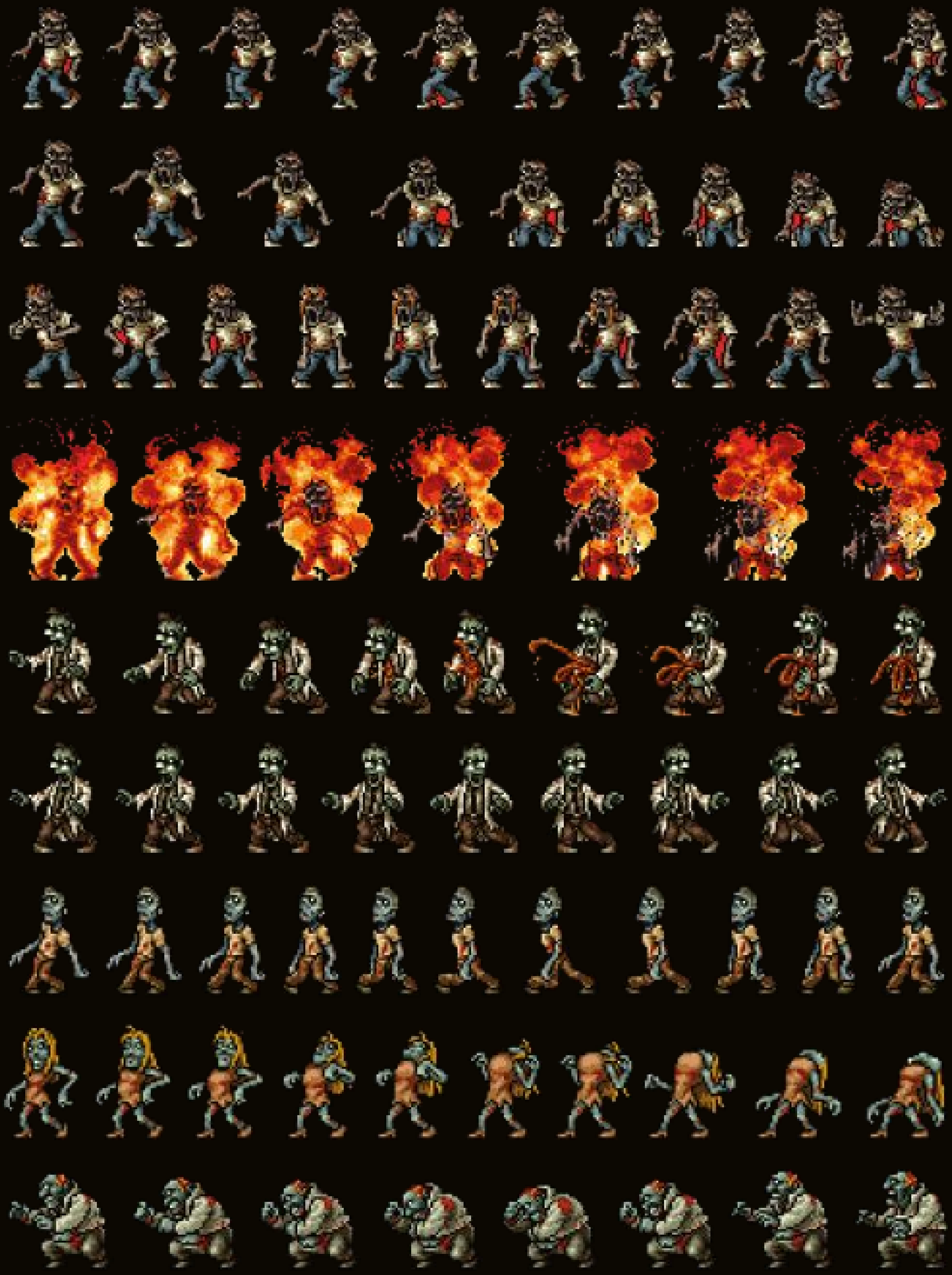


On the Final Mission, you first encounter Rootmars. This stationary alien creature is surround by tentacles and fires objects from its brain. You later learn that this is not the real Rootmars, leading to a second fight later on!

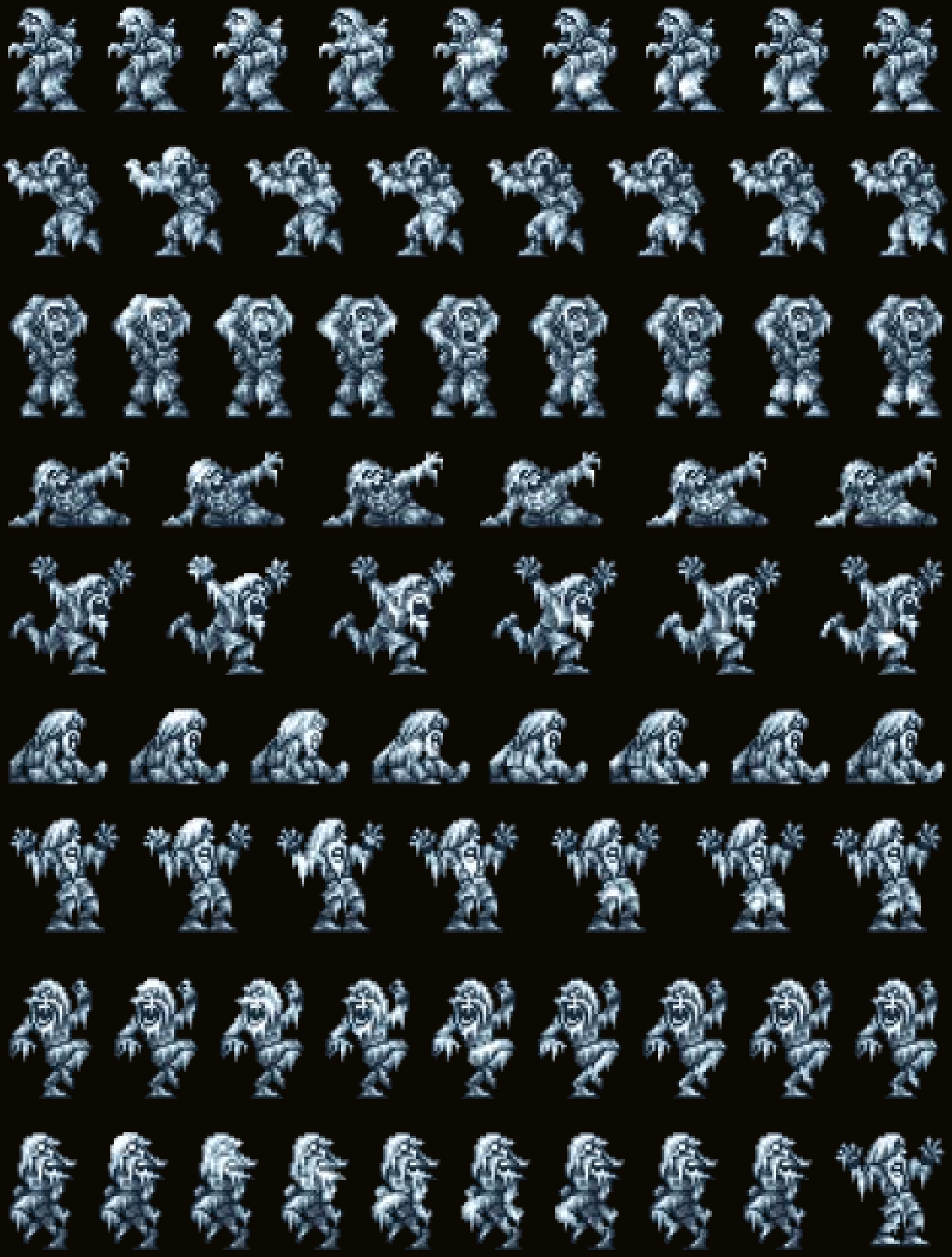


Rootmars is defeated and the game has ended, but Morden is still alive and in good spirits. In this sombre scene, you see one of the hero characters throw their gun into the sea, which then sinks to the bottom as the credits roll.

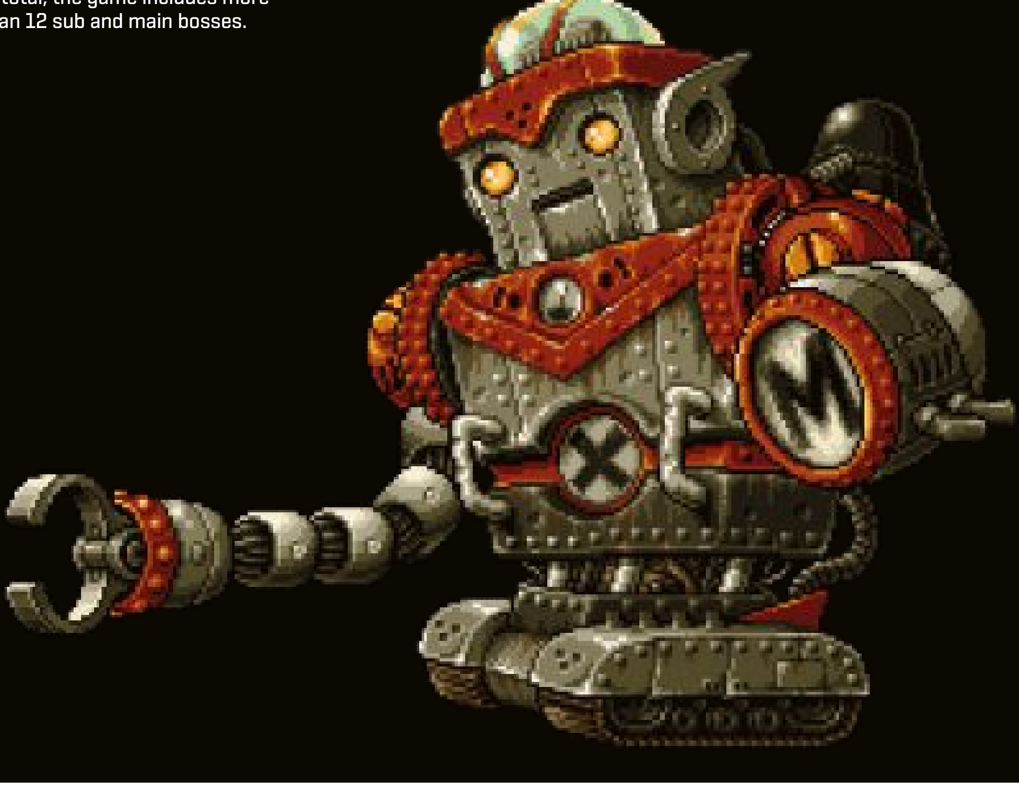
Metal Slug 3's zombies are truly iconic, with each one possessing its own unique animation sequences. The scientist zombie uses its intestines as a hose to spray infectious fluid on the player.



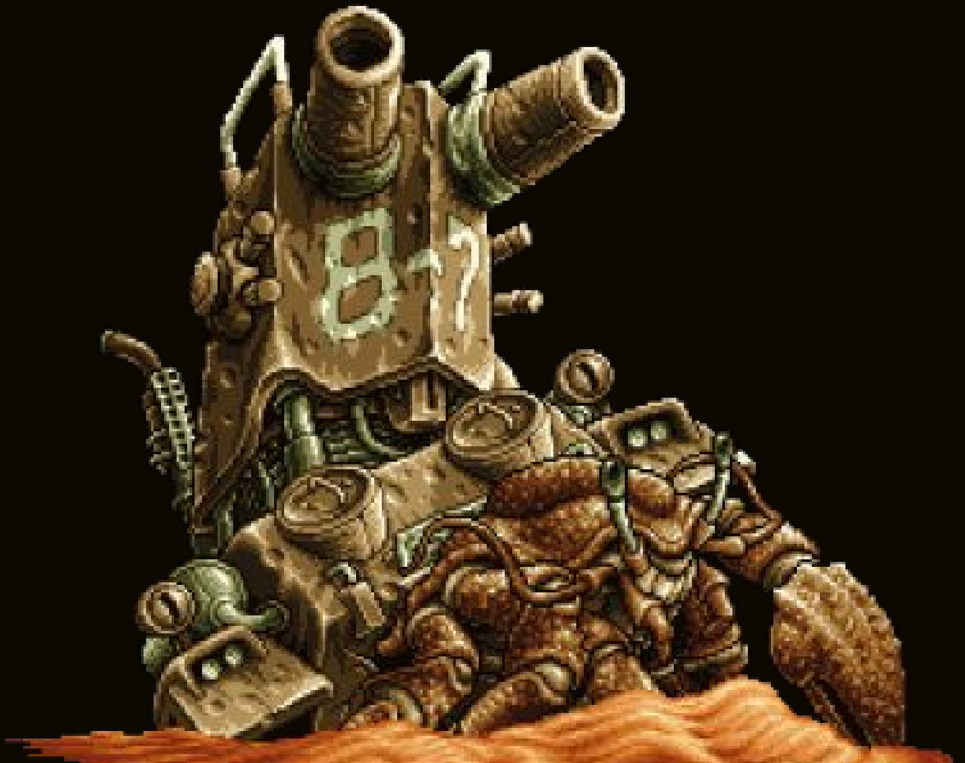
Rebel Soldiers and POWs that have come into contact with the Sasquatch's icy breath are frozen solid. Humorously, they are frozen in some funny poses.



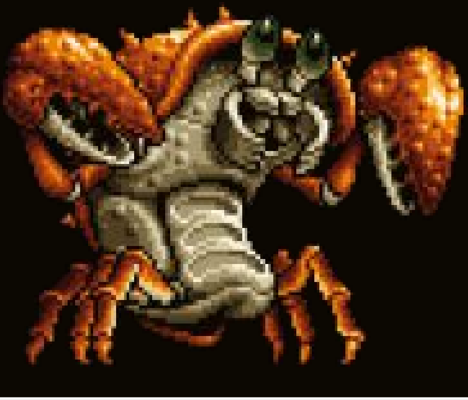
The boss and enemy designs from *Metal Slug 3* are incredibly varied, ranging from mechanical robots to aliens and mythical monuments. In total, the game includes more than 12 sub and main bosses.



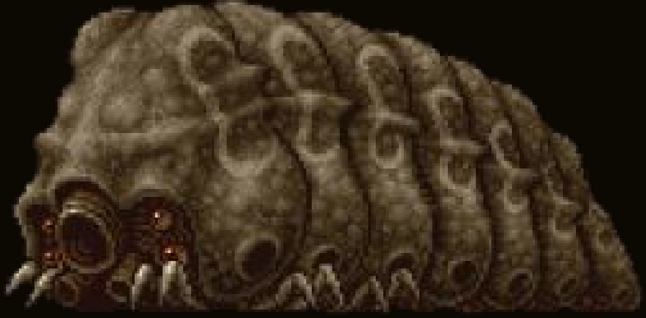
Jupiter King (Mission 3 boss)



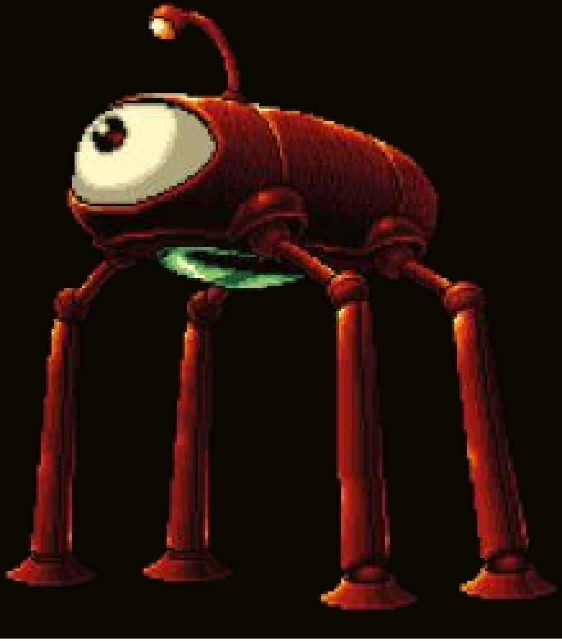
Huge Hermit (Mission 1 boss)



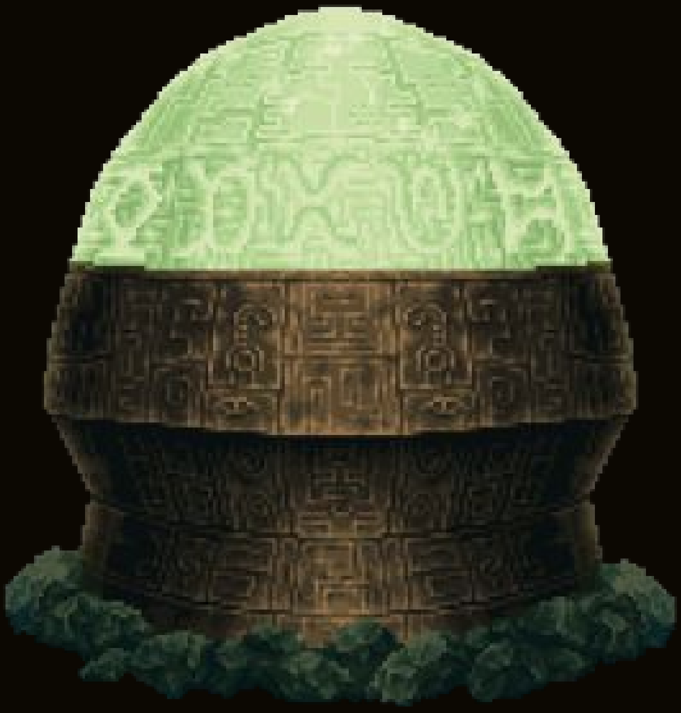
Ohumein-Conga (Mission 1 sub-boss)



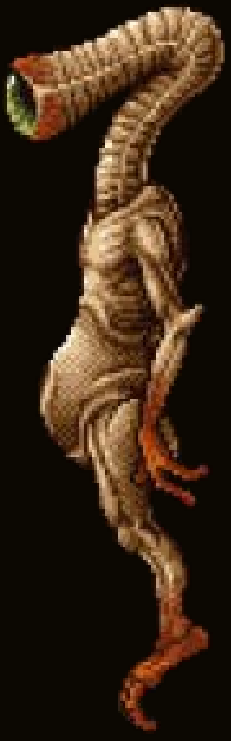
Giant Caterpillar



Mars Mecha

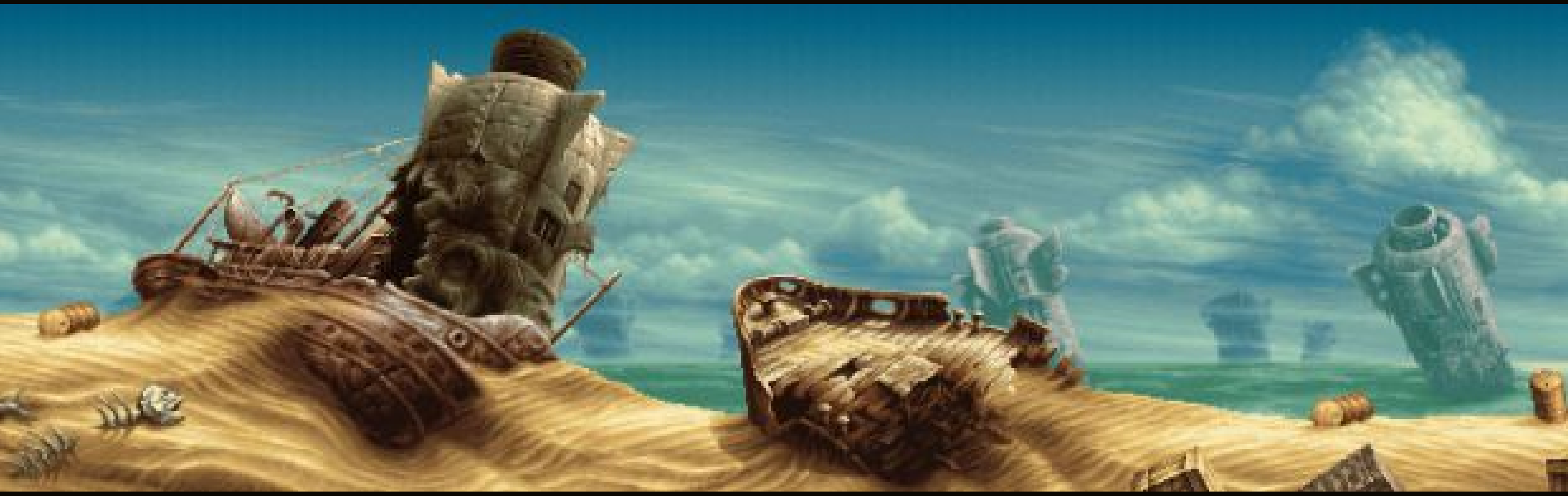


The Ten Commandments of Moses (Mission 2 boss)

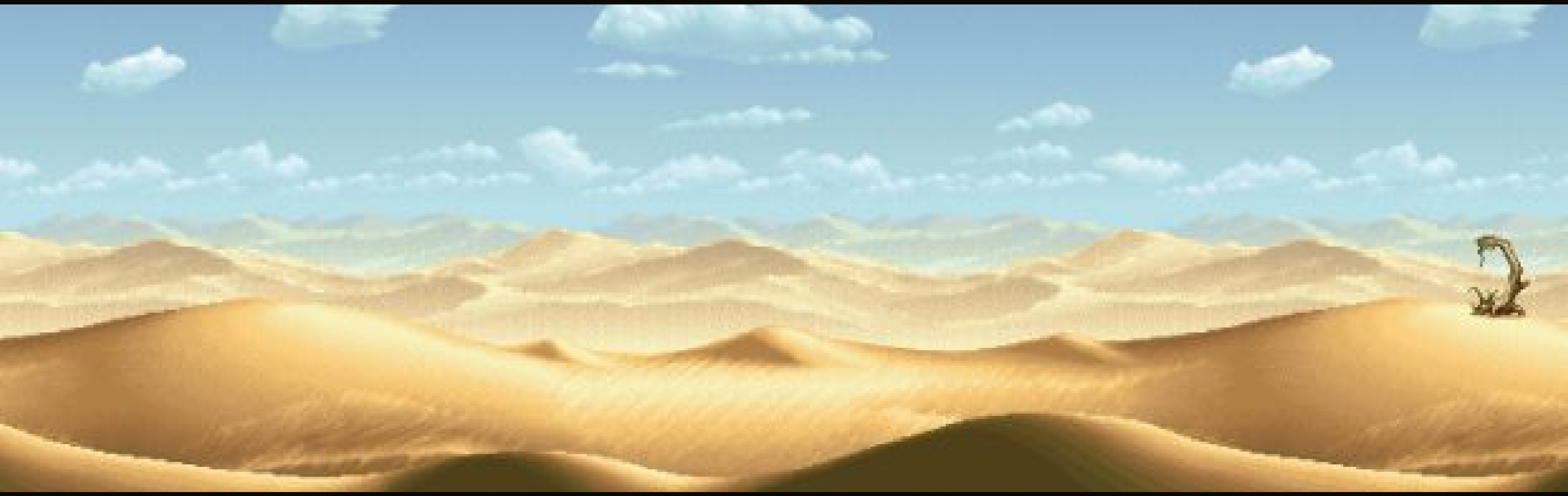


Monoeyes (Mission 2 sub-boss)

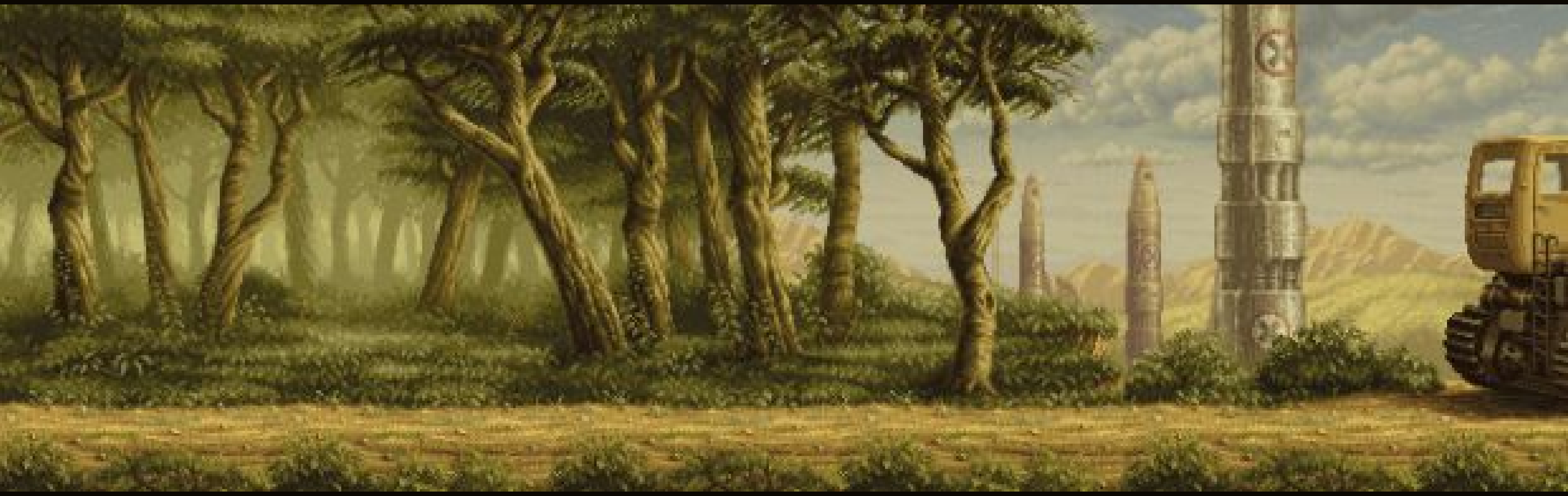
A small selection of level maps from *Metal Slug 3* that, once again, showcase the talent of the game's background artists. Most titles by 2000 had moved on to CGI backgrounds, but Metal Slug stuck firmly to its pixel art roots.



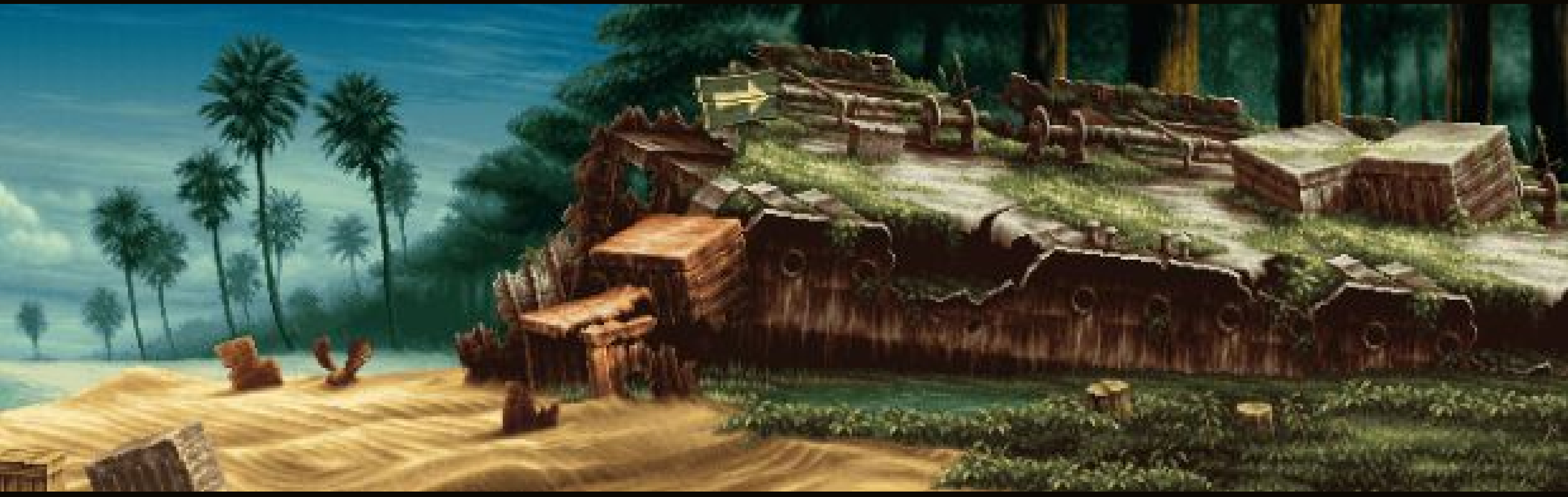
Mission 1

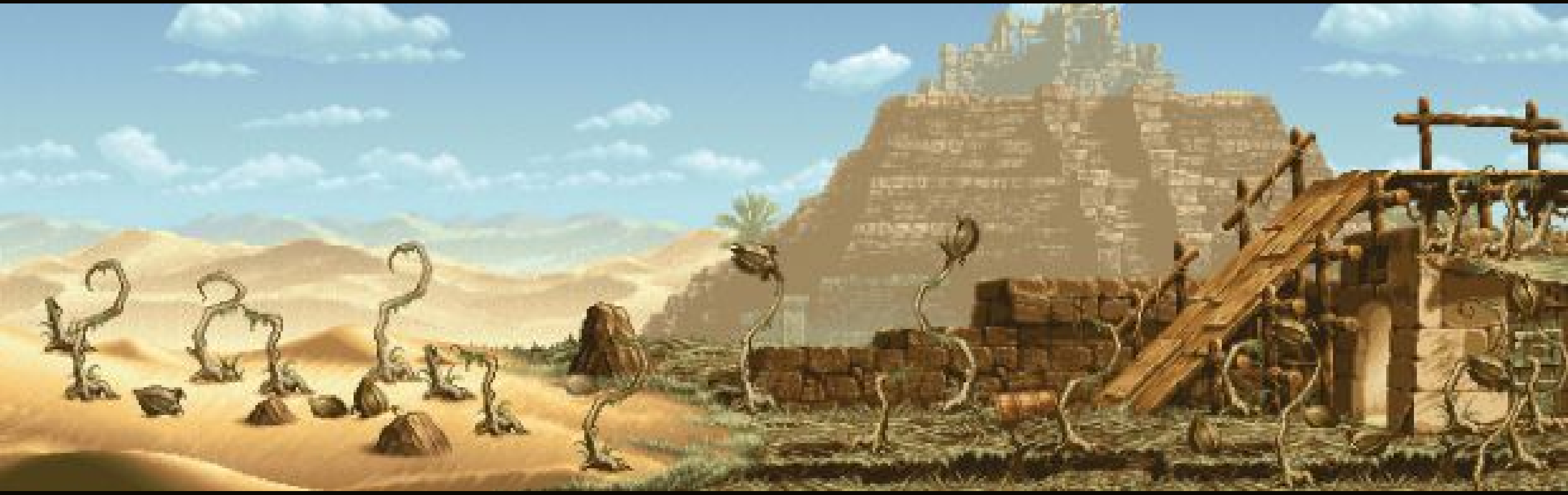


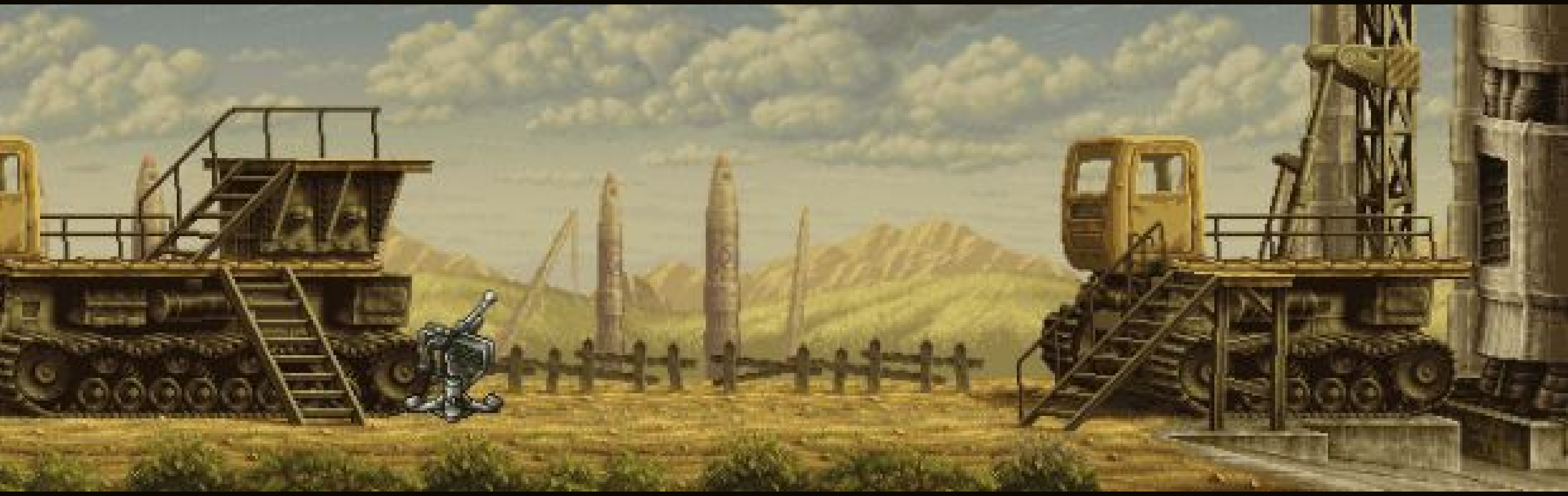
Mission 4



Final Mission







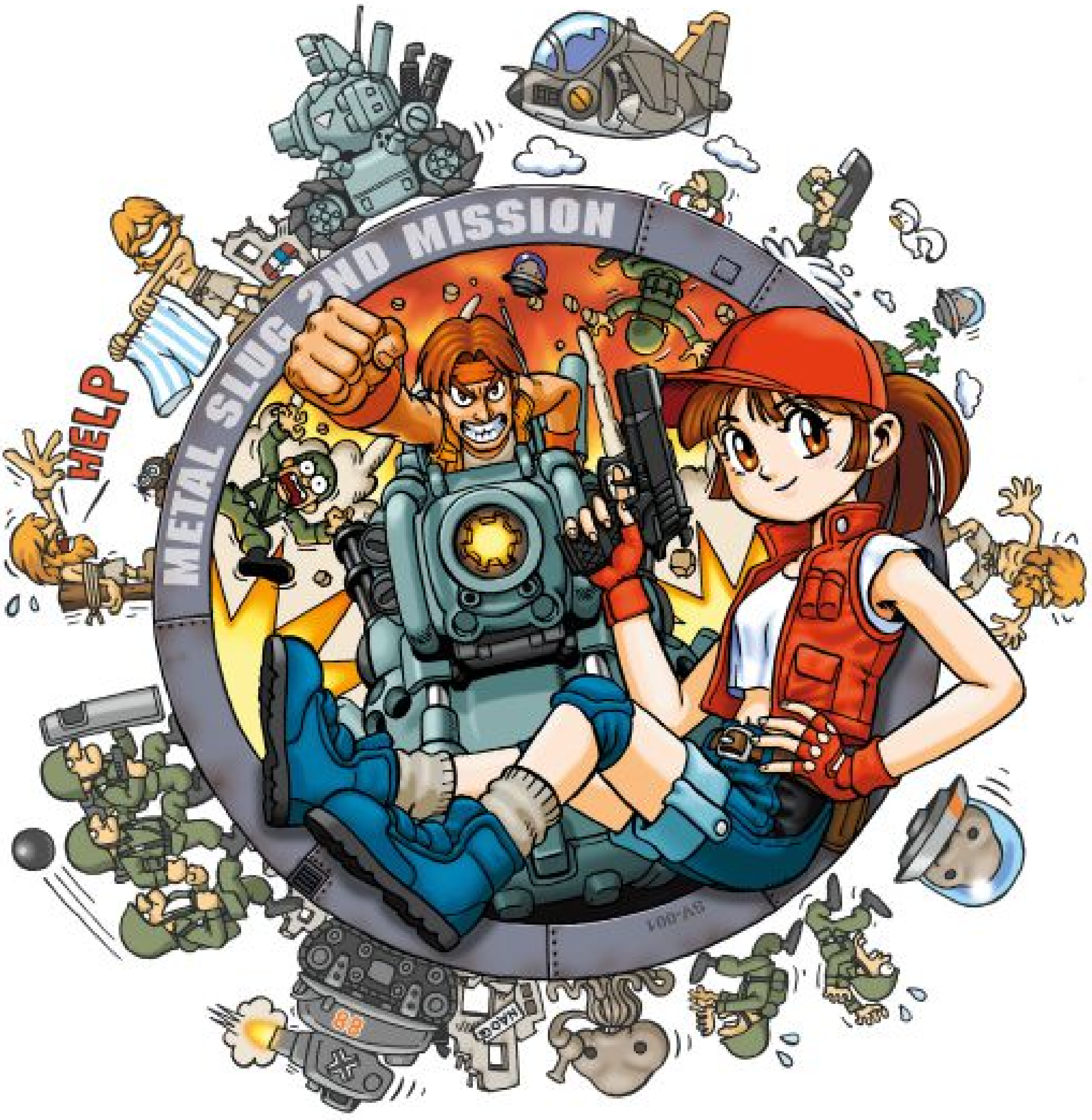
First released: 2000 / Players: 1 / Developed by: Ukiyotei / Published by: SNK

METAL SLUG
2ND MISSION
TM

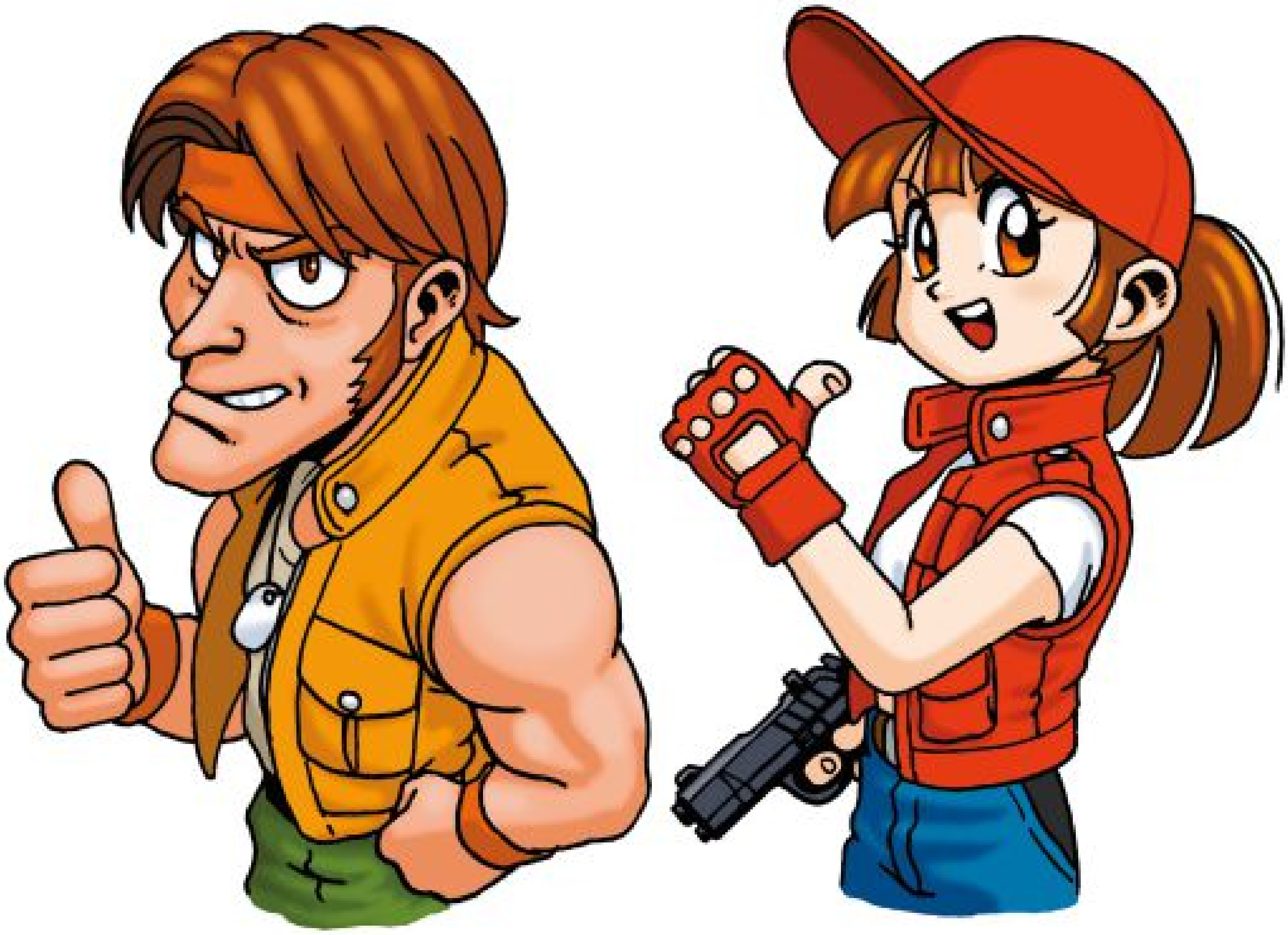
NGPC

Again coded by Ukiyotei, the second Metal Slug title for the NEOGEO Pocket Color handheld system drastically improved on its forerunner; 38 missions were included this time around, more than double the number in the original. Two playable characters – Gimlet and Red Eye – were selectable from the start, while a third – called Tequila – was a POW who became available by clearing every mission. Gimlet and Red Eye had access to different weapons, while Tequila was capable of using all armaments in the game. While the visuals in *Metal Slug 2nd Mission* were still a long way from matching the splendour of the arcade entries, they were noticeably improved over the first NEOGEO Pocket Color outing.

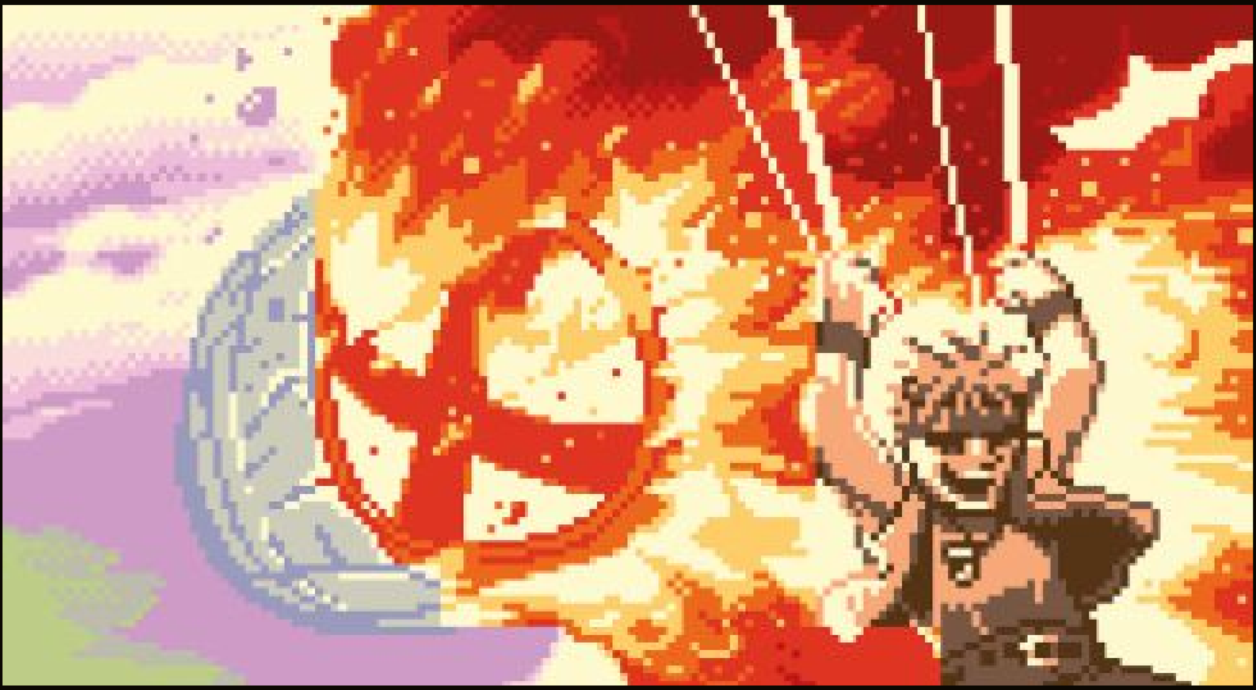
The cover artwork for *Metal Slug 2nd Mission* by in-house artist NAO Q focuses on Gimlet and Red Eye, framed within a circular design and surrounded by the various characters and vehicles from the game – including the Mars People, POWs and the Slug Flyer. This artwork does not feature the third playable character, Tequila, the Rebel Soldier POW who can only be selected once all 38 missions are completed.

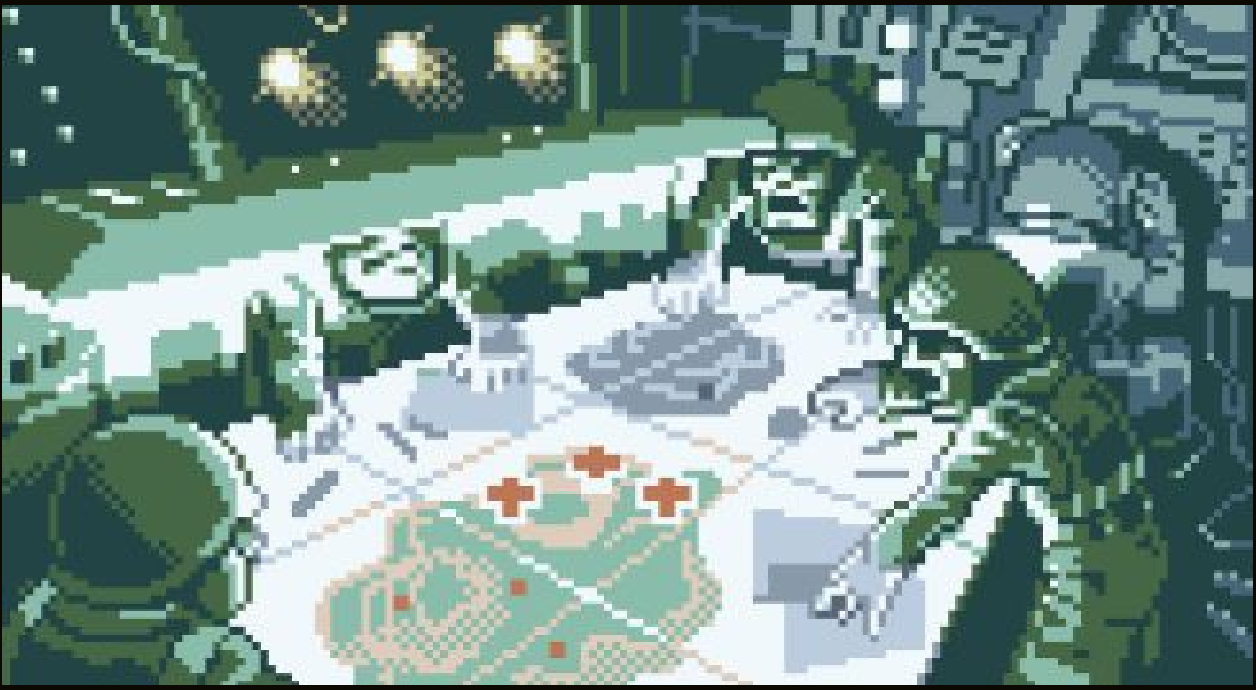


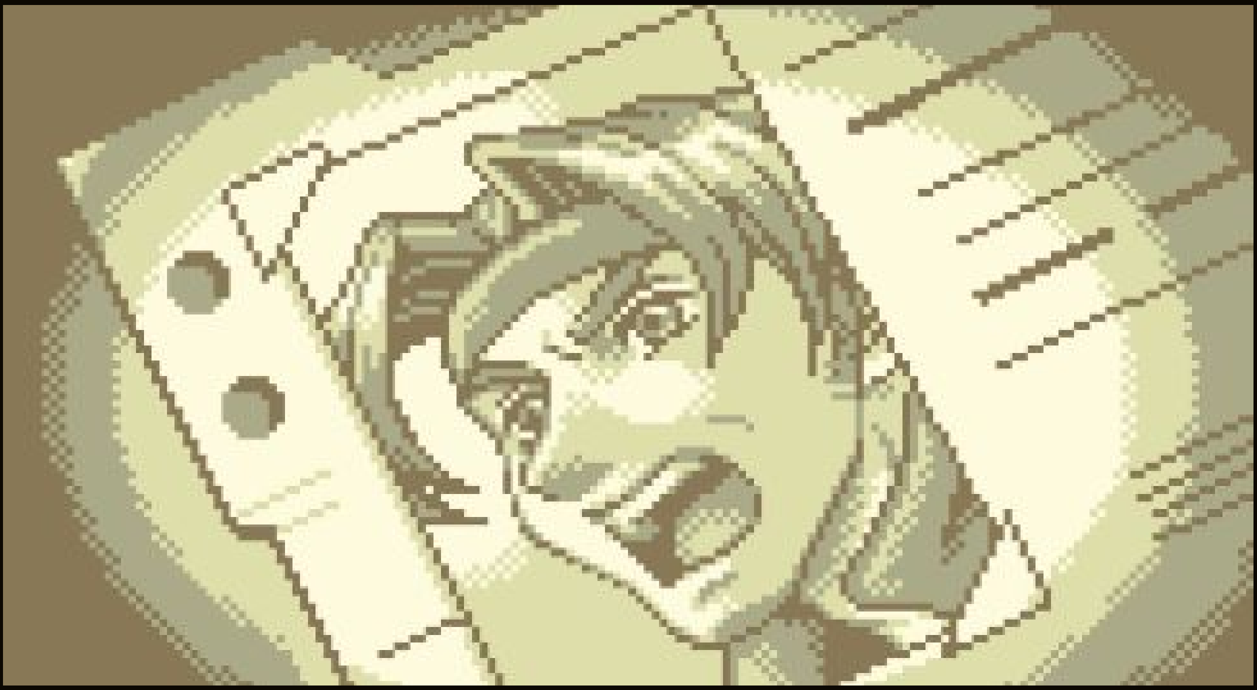
An illustration showing the two main protagonists, Gimlet and Red Eye. The UK manual simply refers to them as 'Male' and 'Female', and some versions even exist where there are called 'Marco' and 'Fio'.

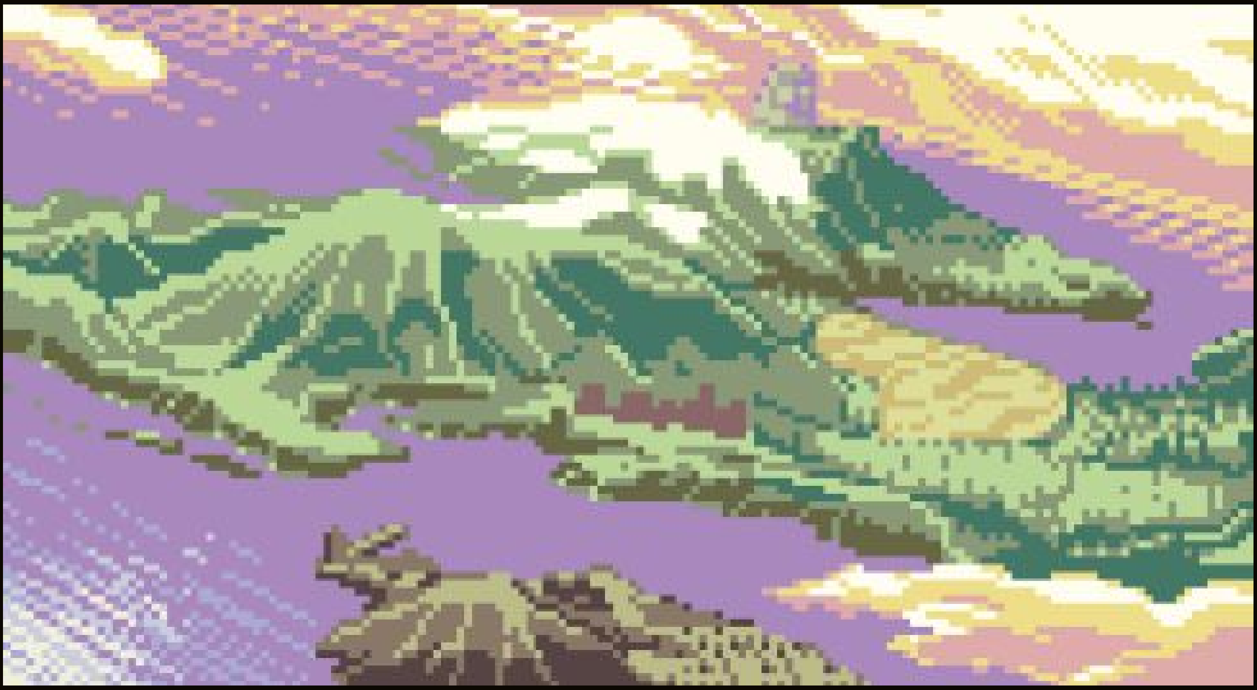


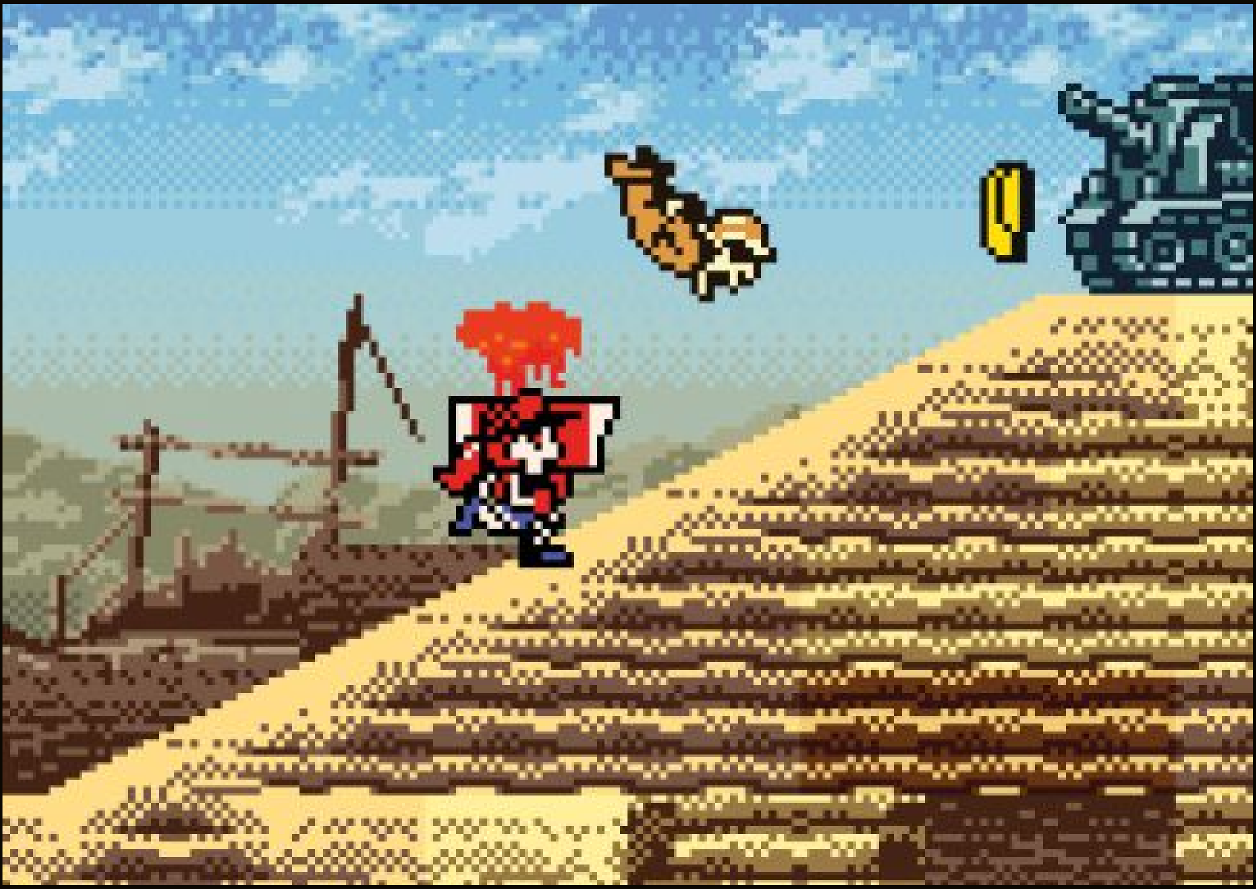
The intro sequence from *Metal Slug 2nd Mission* shows a series of brilliantly drawn images depicting the backstory of how Lt. Colonel Macba's army is once again on the warpath. This time, they've even made contact with the Mars People!



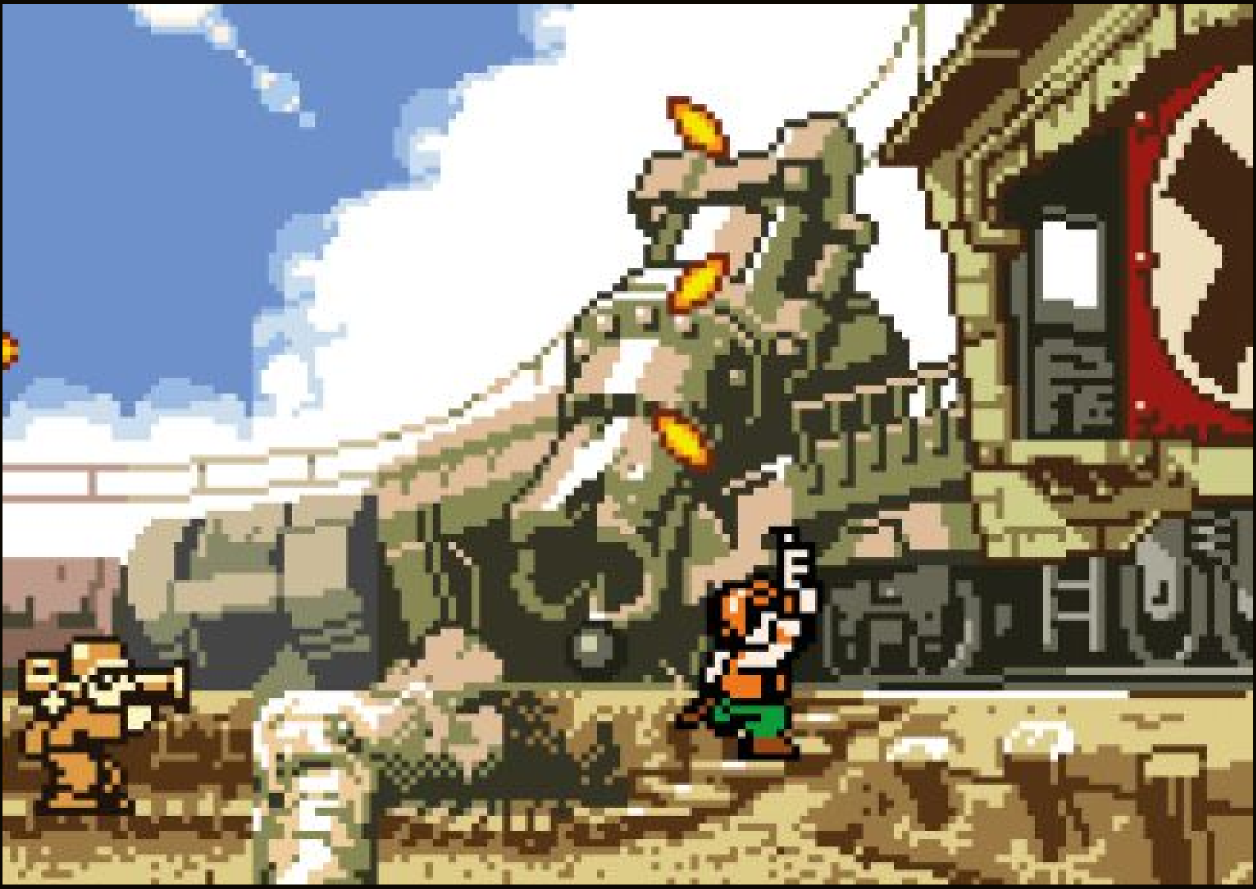




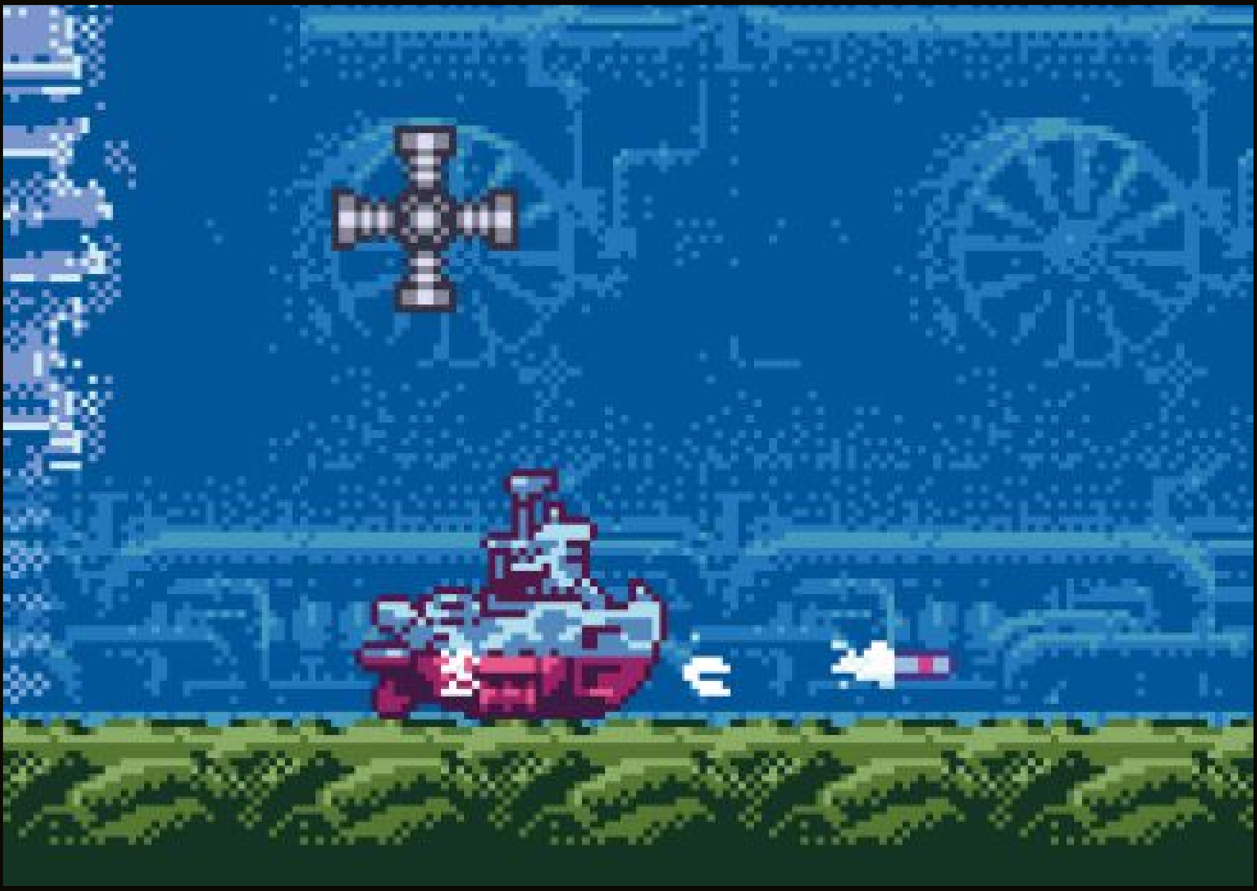




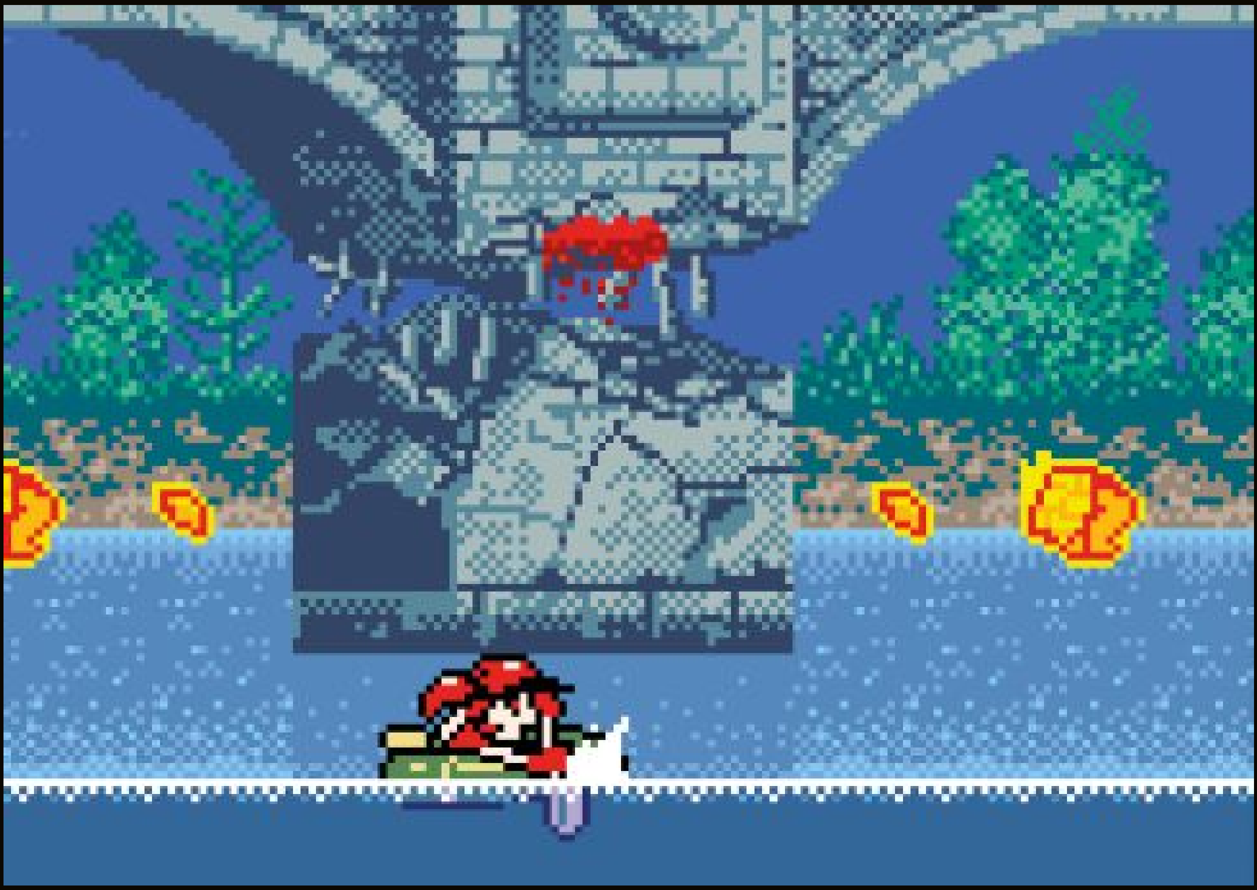
Metal Slug 2nd Mission now allows you to choose between two playable characters: Gimlet and Red Eye. Each character has their own specific set of weapons.



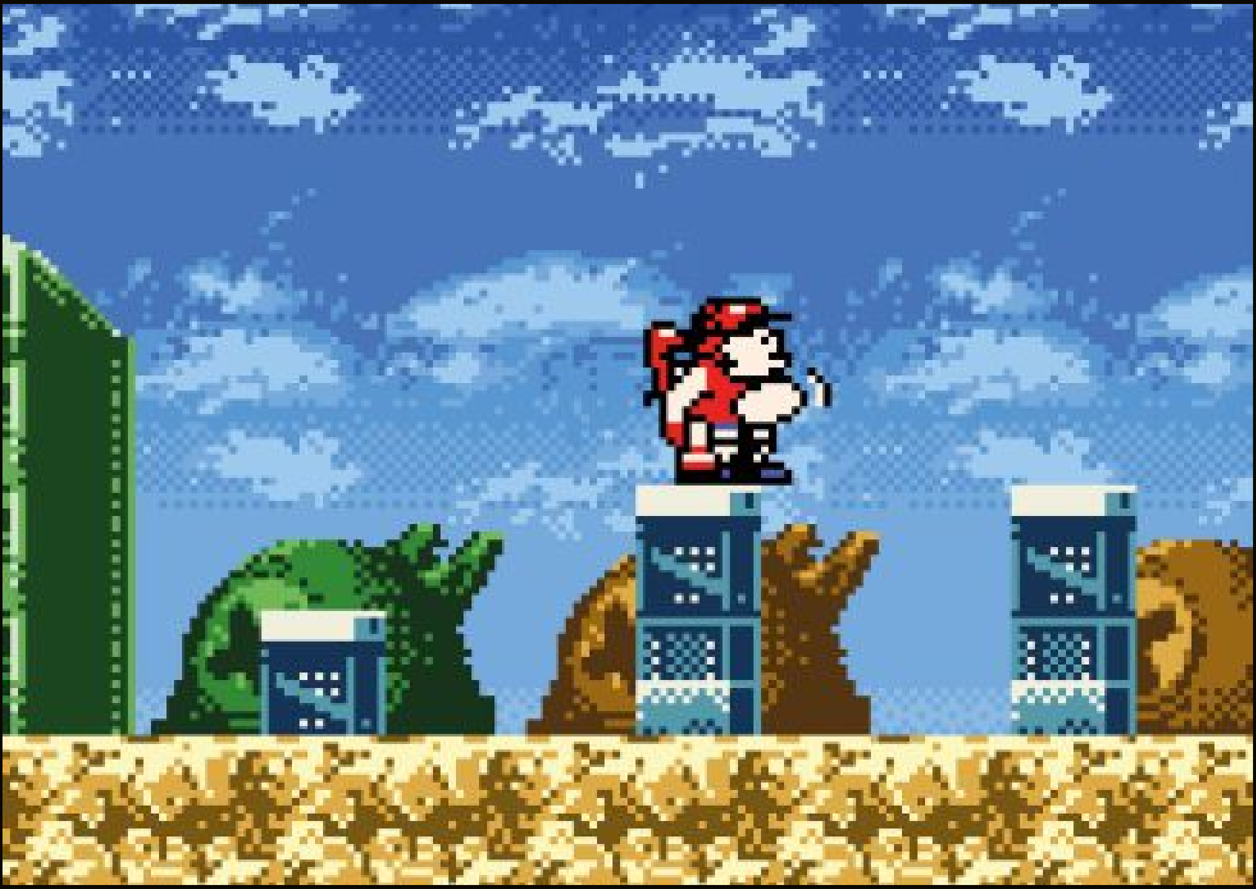
At the end of Mission 1, you face Big Bertha, a huge cannon. It can only fire in one direction, so it's quite easy to dodge the attacks. Big Bertha was originally seen in the original *Metal Slug*; it was located in the background of the Shoe & Karn boss fight.



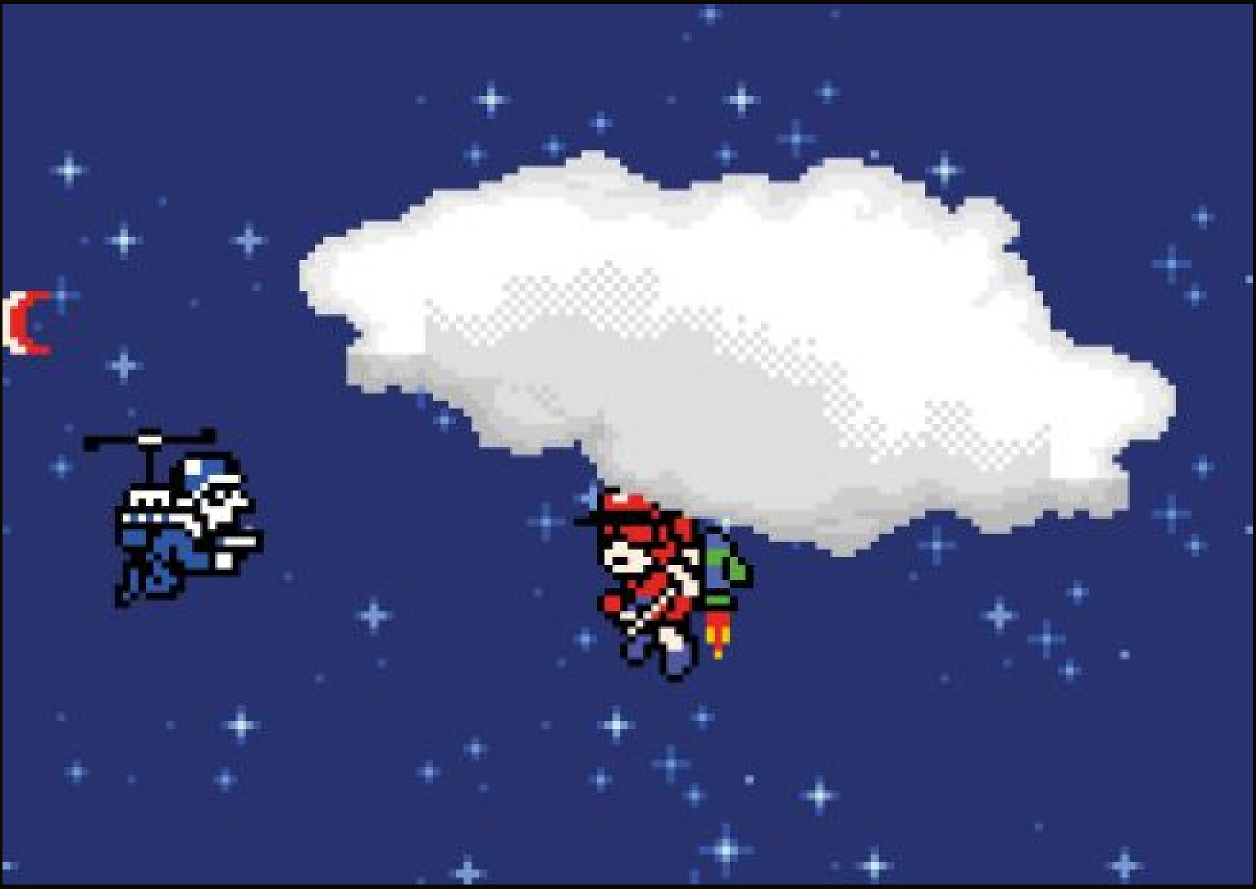
This level feels like a tribute to *In the Hunt*. The Sub Slug is very similar to the Granvia in Irem's game, and has a limited arsenal as it's missing a Vulcan and can only fire torpedoes directly ahead.



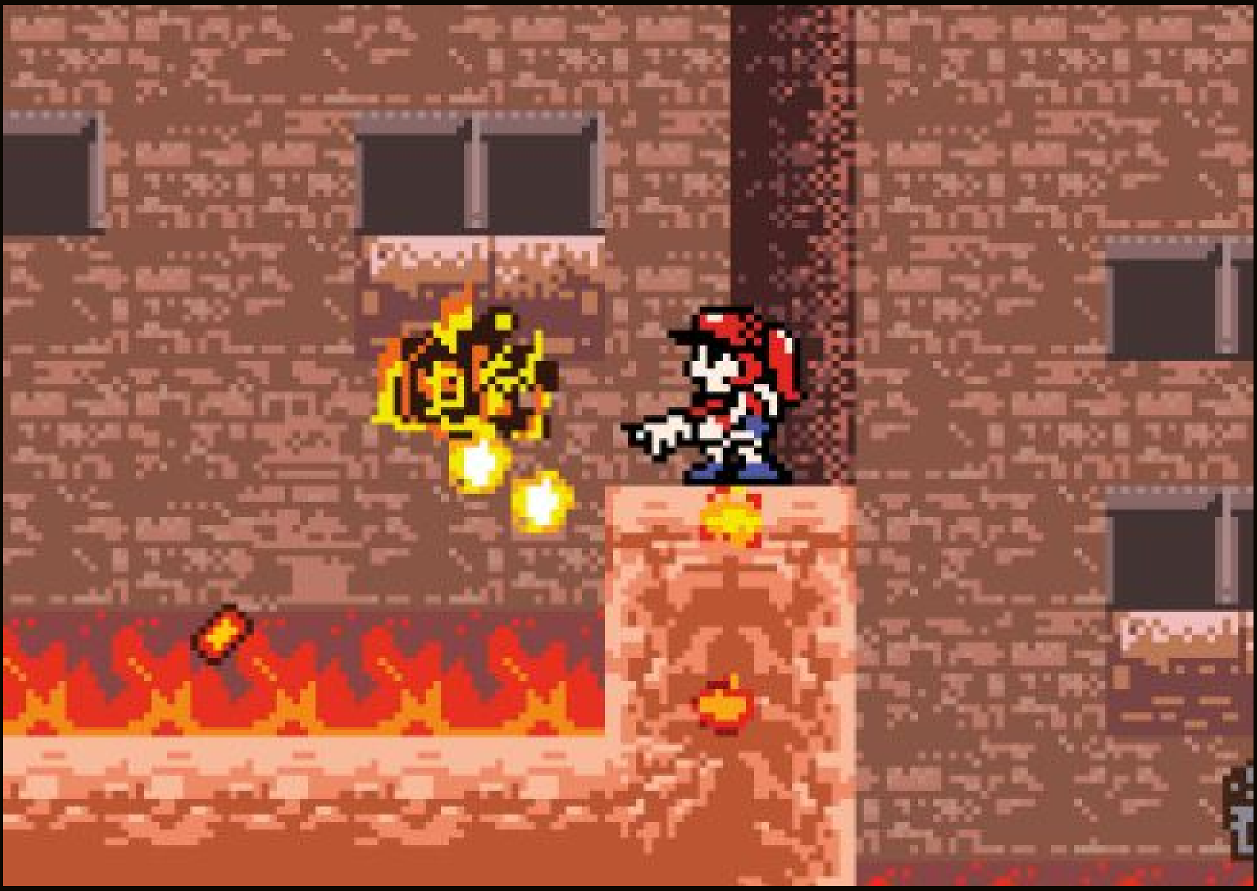
This short mission is almost like a mini-game in which you must row your boat through the water while avoiding the falling debris from above.



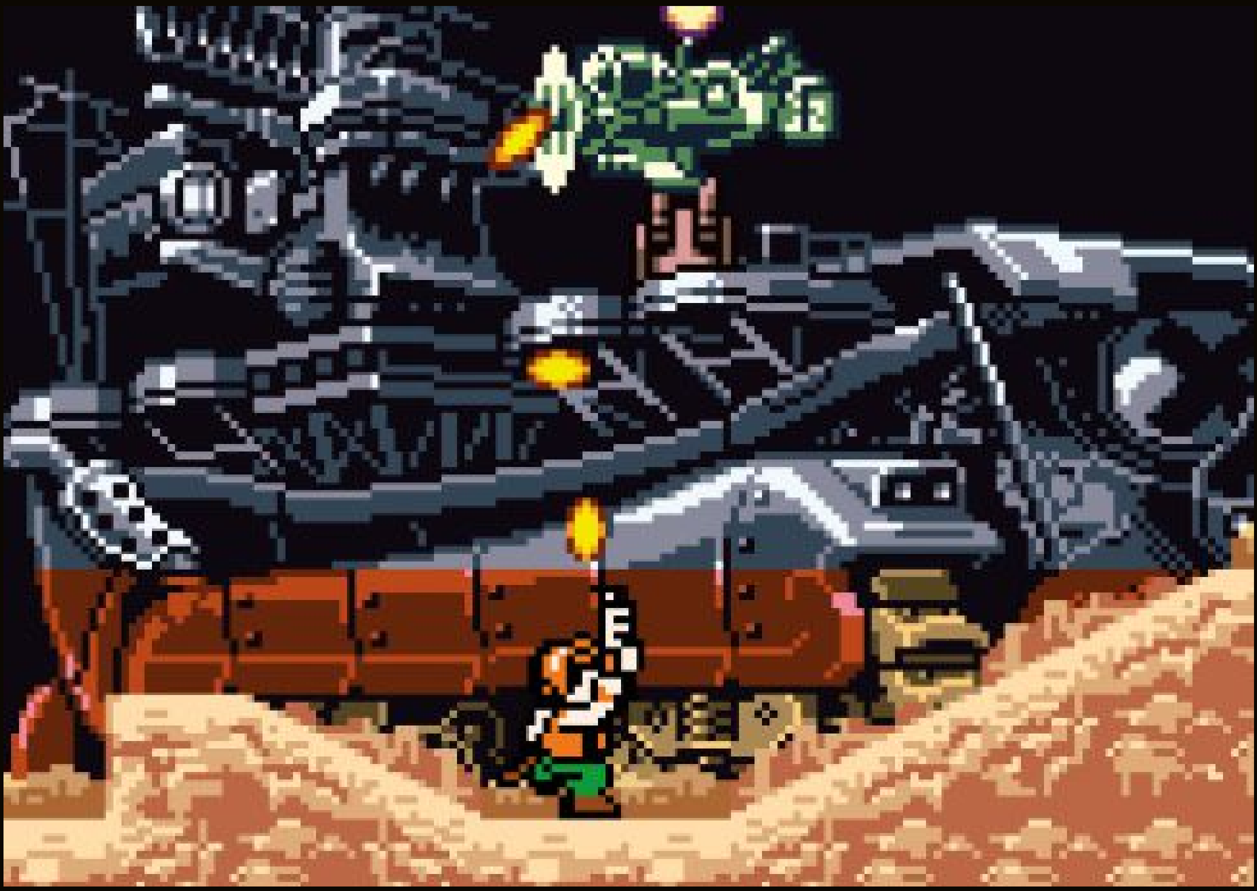
For the first time, a Pocket Color Metal Slug game introduces a transformation. As is the case in *Metal Slug 2*, *X* and *3*, eating cake and pork turns you obese, which, in turn, slows you down. Picking up a thinning potion makes you slim again.



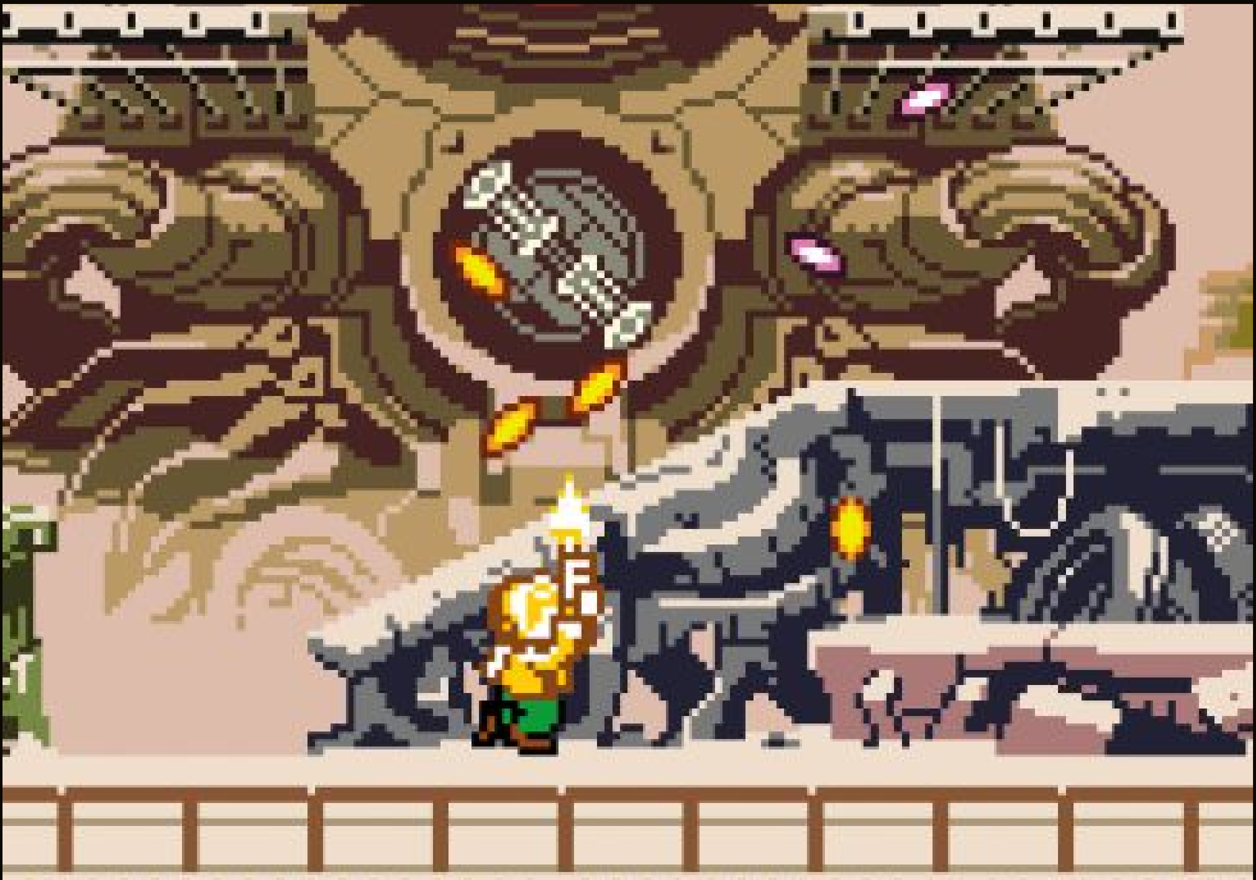
After being shot down in the Slug Flyer, activating your jet burner enables you to safely fall down to land. Just watch out for the Rebel Soldiers wearing backpack helicopters!



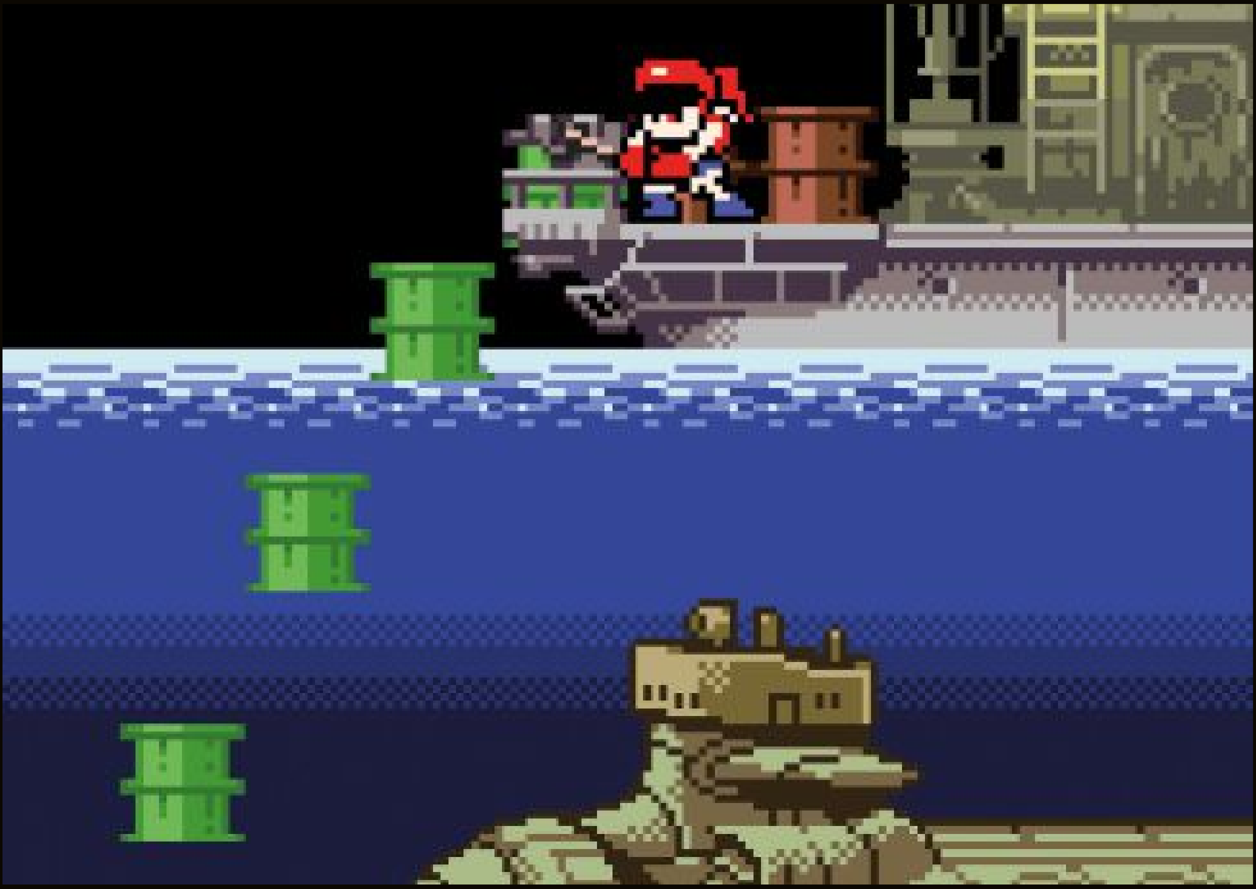
The fire gun is a weapon only available to Red Eye. Using it on enemy soldiers causes them to dramatically burst into flames and fly backwards.



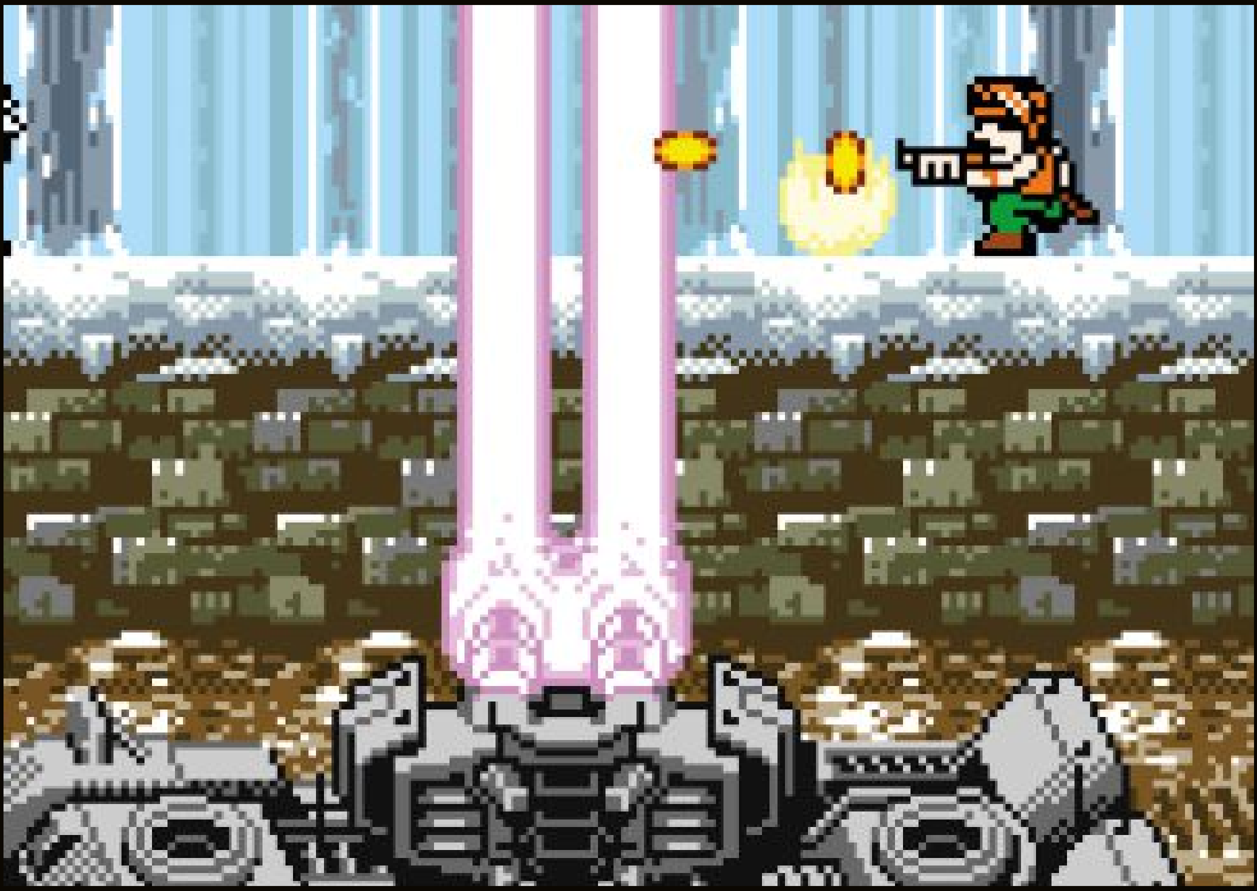
The Terrain Carrier boss is a scaled-down version of the amphibious tank, Big Shiee, from *Metal Slug 2/X*. It only has half the number of cannons, but does have a launch runway for releasing Flying Tara planes.



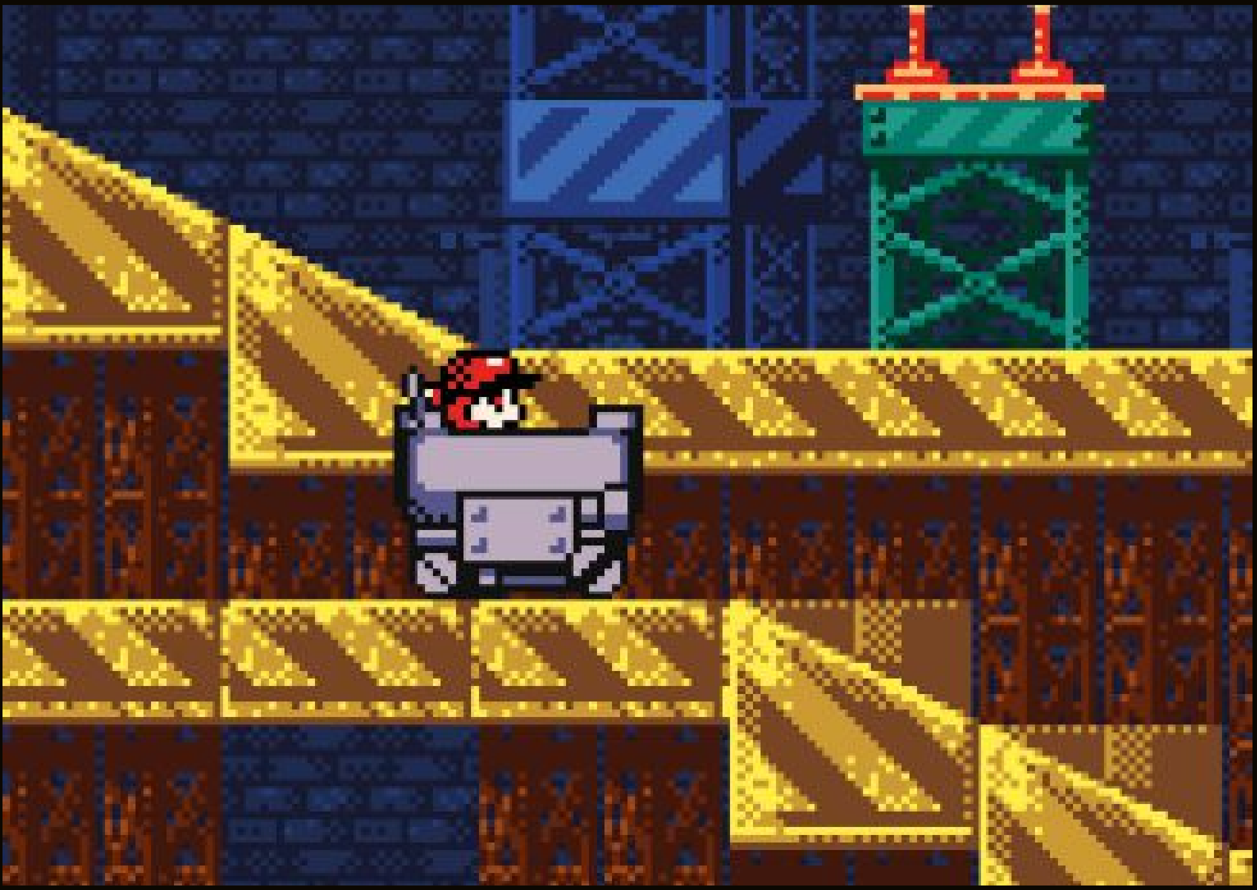
The Rebel Reactor boss fight starts off with you having to shoot its turret while avoiding being crushed by a huge metal foot. Once this phase is complete, you must then get to a higher platform and shoot its giant red eye.



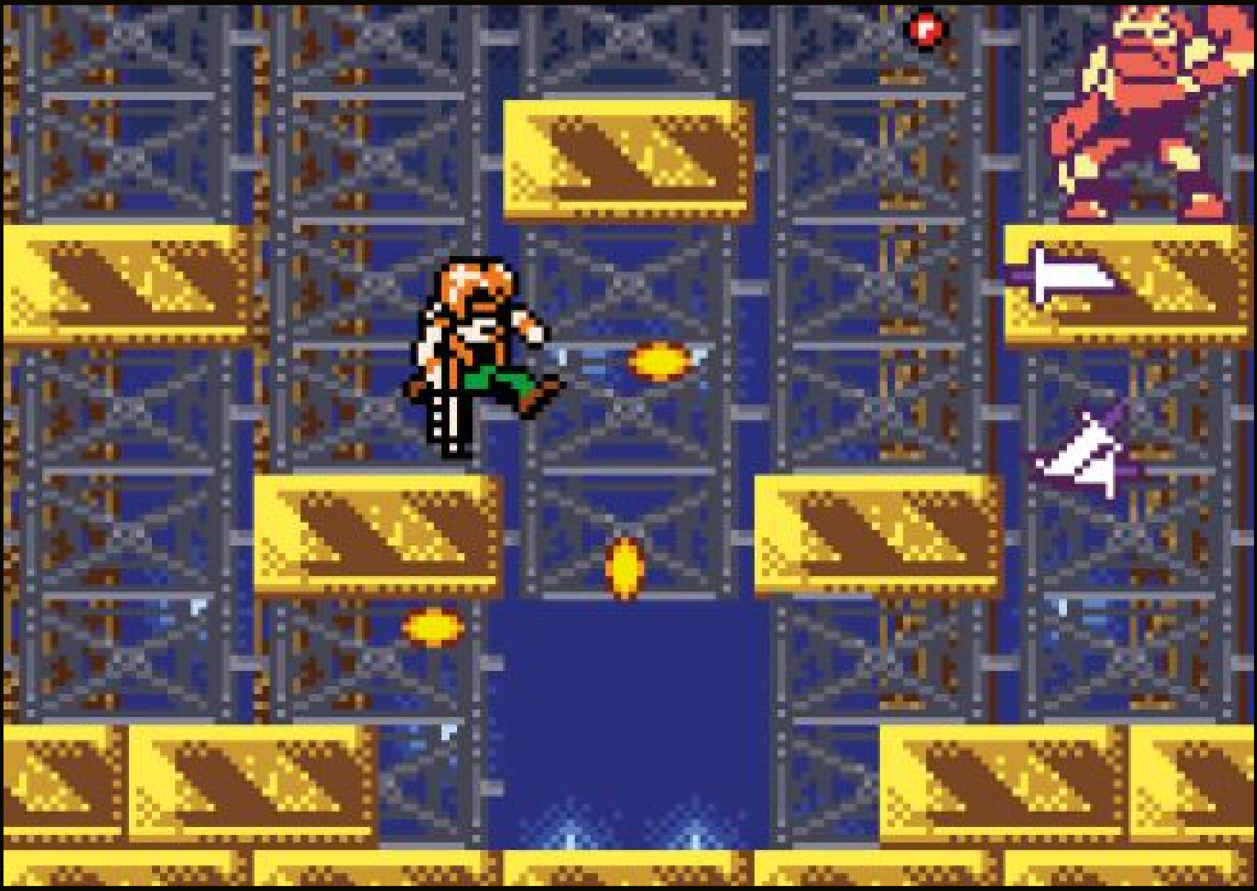
To defeat the giant Rebel Submarine, you drop explosive oil barrels into the sea – which is no mean feat, as it must be done while avoiding the missiles being fired up at you.



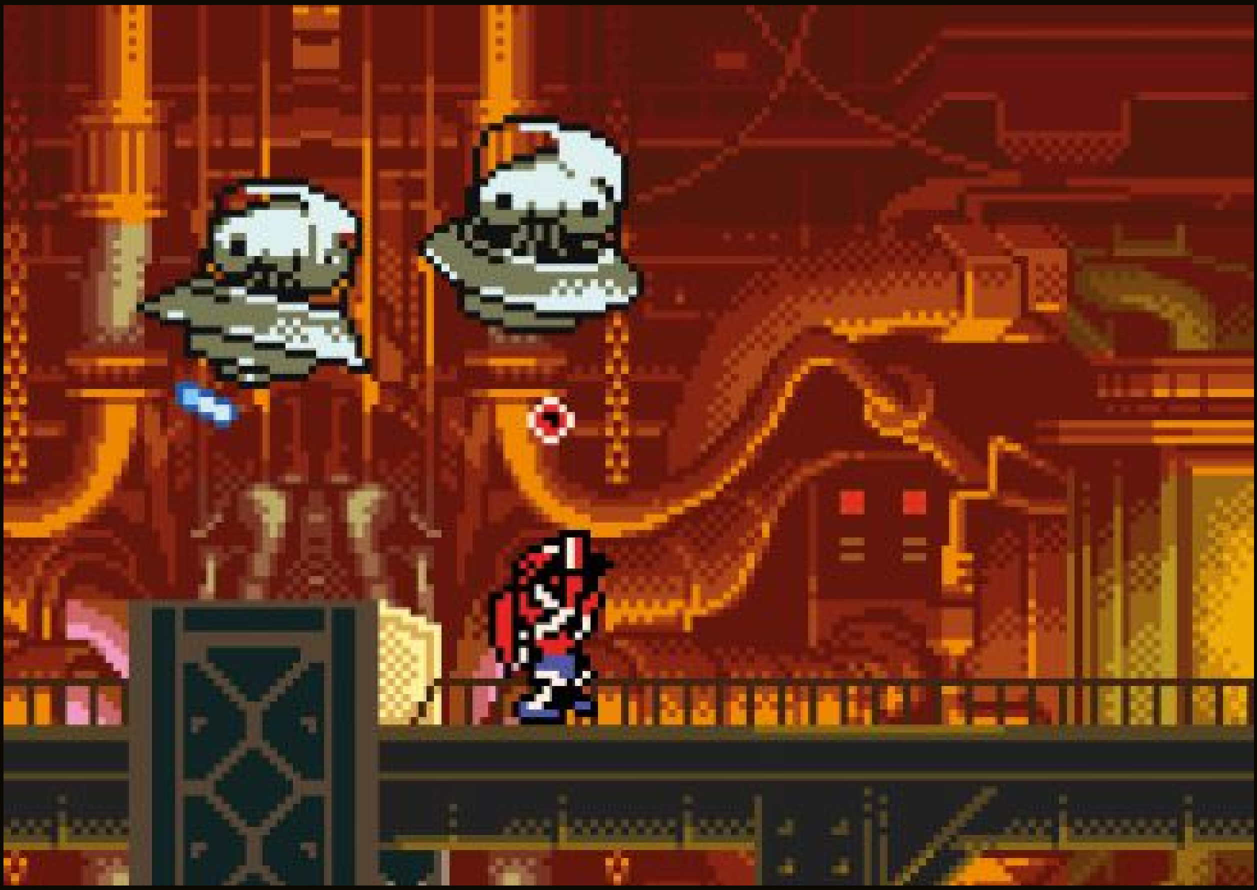
First seen in the original *Metal Slug*, the Tani Oh is a heavy artillery tank and serves as the end boss in Missions 23 and 24. Its main attack is the huge vertical laser, which can also damage enemy soldiers.



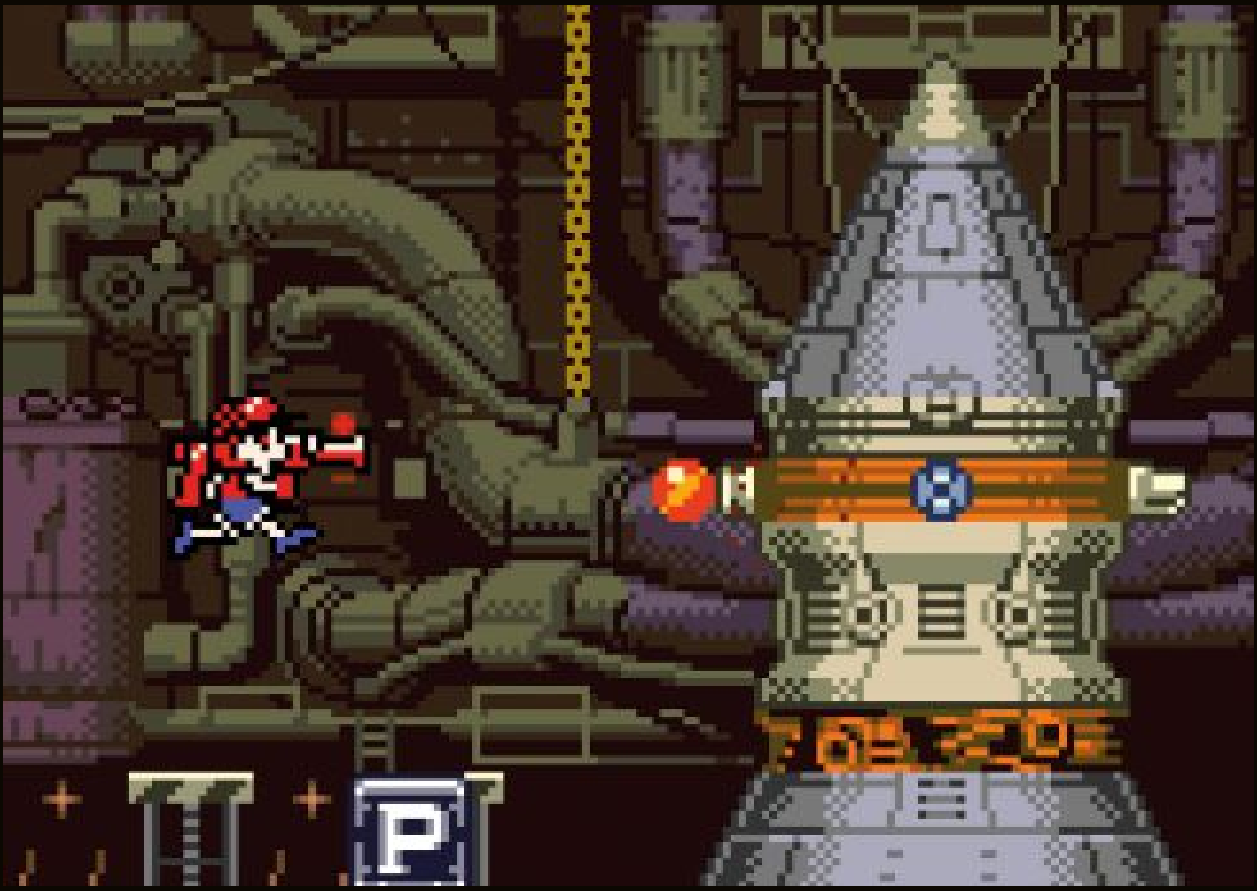
Mine cart-type sections have been a standard trope in video games over the years. *Metal Slug 2nd Mission* is no different; its level comes complete with spikes and fire which you need to avoid on the way to your battle with Macba.



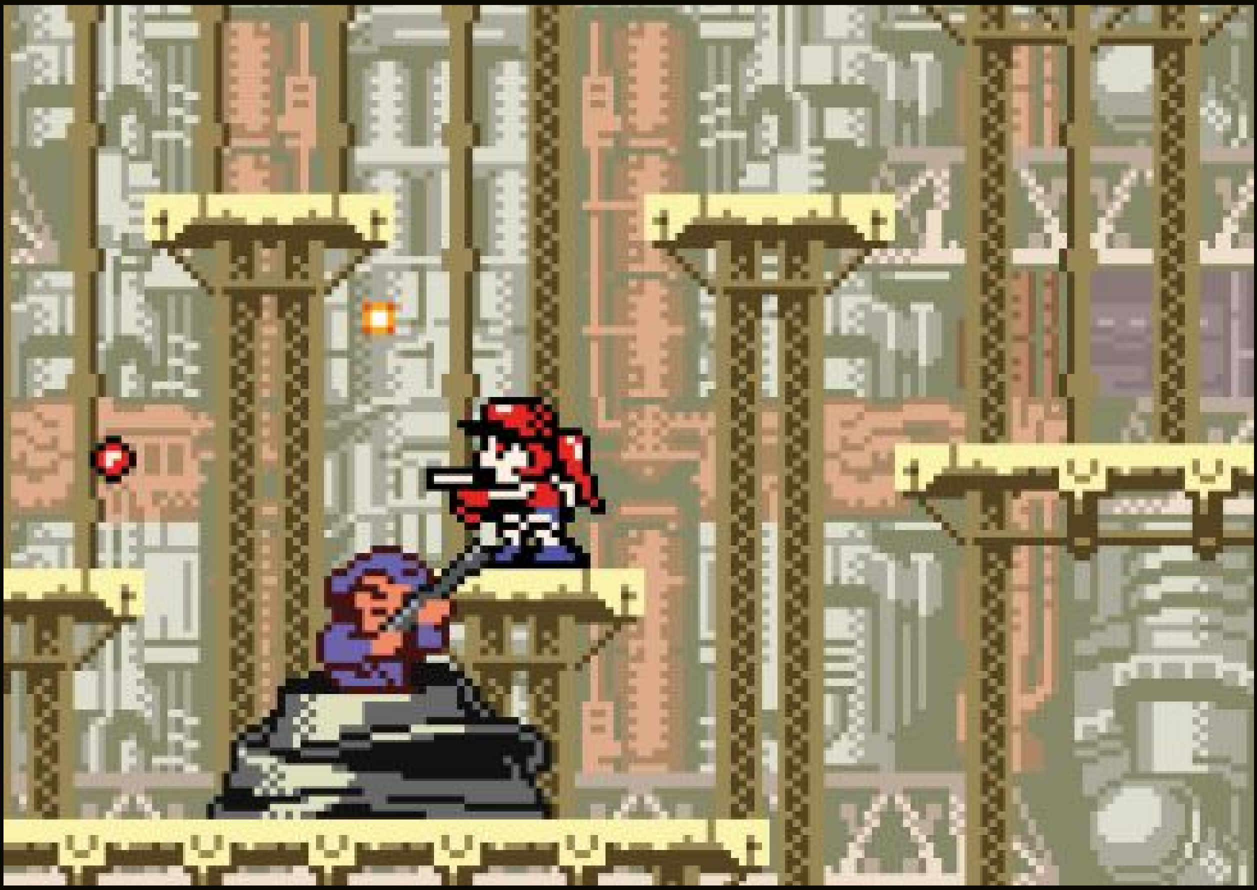
Very similar to *Metal Slug 1st Mission*, you must fight Macba in this almost identical scene. This is one of three times that you fight this fiendish enemy in *Metal Slug 2nd Mission*.



First seen in *Metal Slug 2*, the Mars People appear in *Metal Slug 2nd Mission* and have been a mainstay in the series ever since.

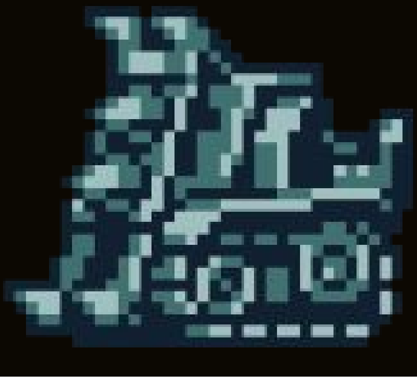


The final boss in *Metal Slug 2nd Mission* comes in three phases. The first sees you destroying the Rebel Rocket. Once defeated, the top of the rocket chases you with its homing missiles and extending claw attack.

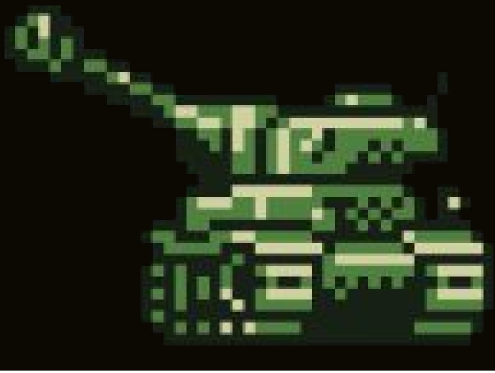


The final phase of the final boss fight sees you come face-to-face with Kanan, the commander of the Rebel Army's Phantom Squad. He emerges from the top of the rocket and – unlike every other Metal Slug boss – is killed with just one hit.

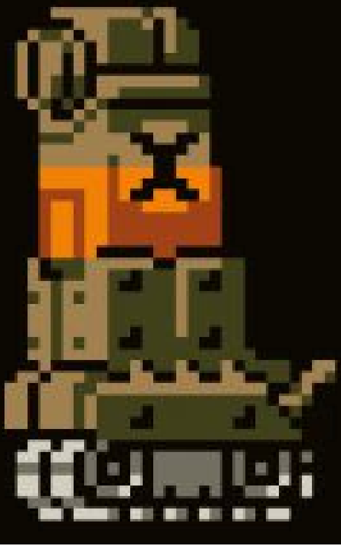
Fans of the Metal Slug series will recognise many of the vehicles from *Metal Slug 2nd Mission*; each has been faithfully redrawn for the NEOGEO Pocket Color, complete with its distinctive animations.



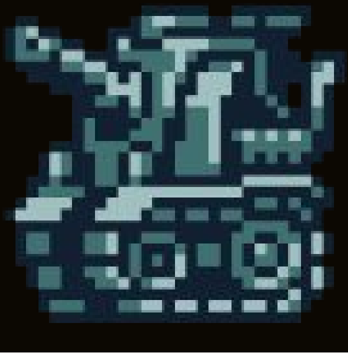
T-2B Melty Honey tank



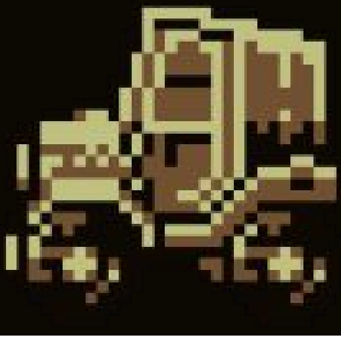
Girida-O tank



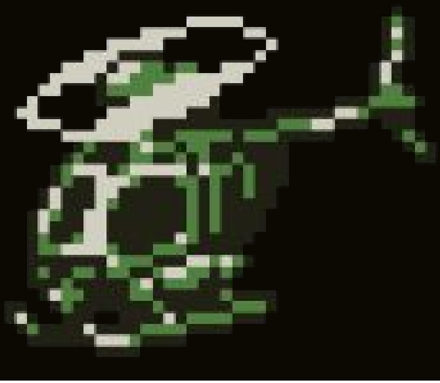
Nop-03 Sarubia tank



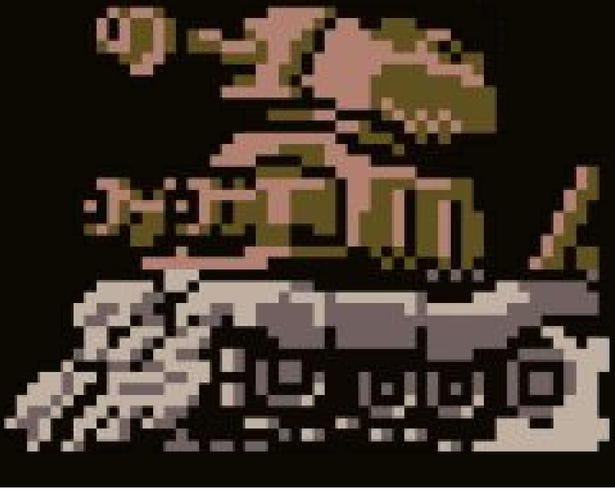
Di-Cokka tank



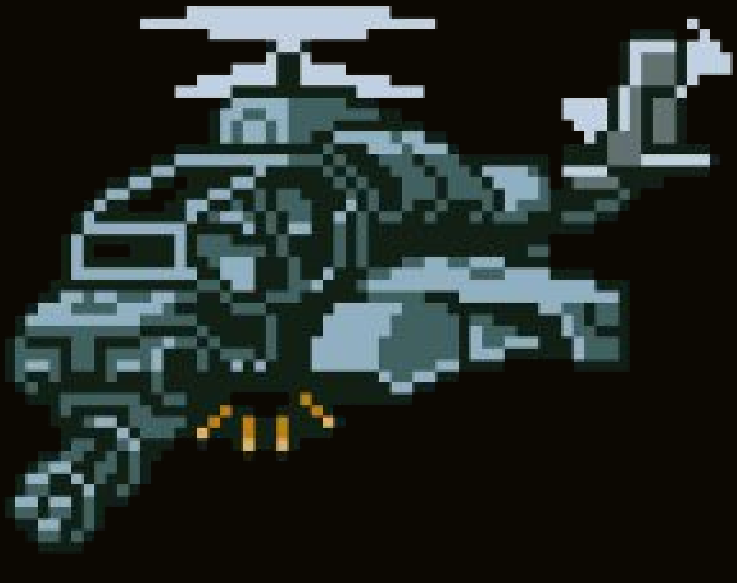
MV-280C jeep



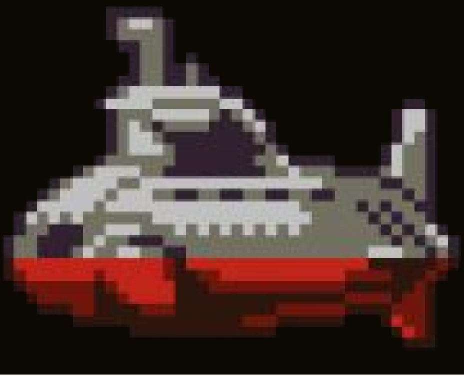
MH-6S Masknell helicopter



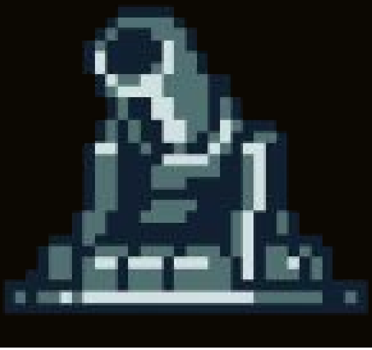
Karn tank



R-Shobu helicopter

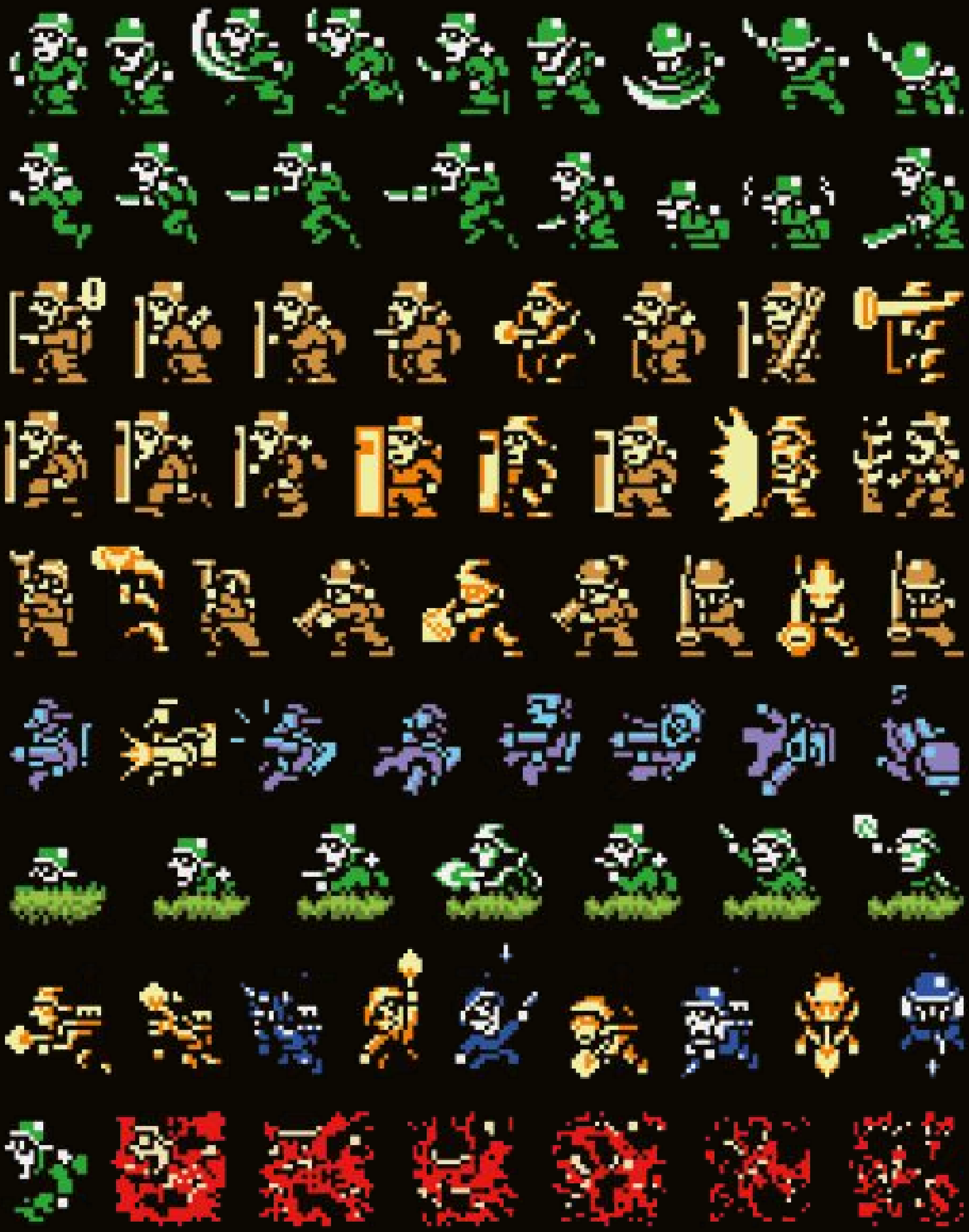


Slug Sub

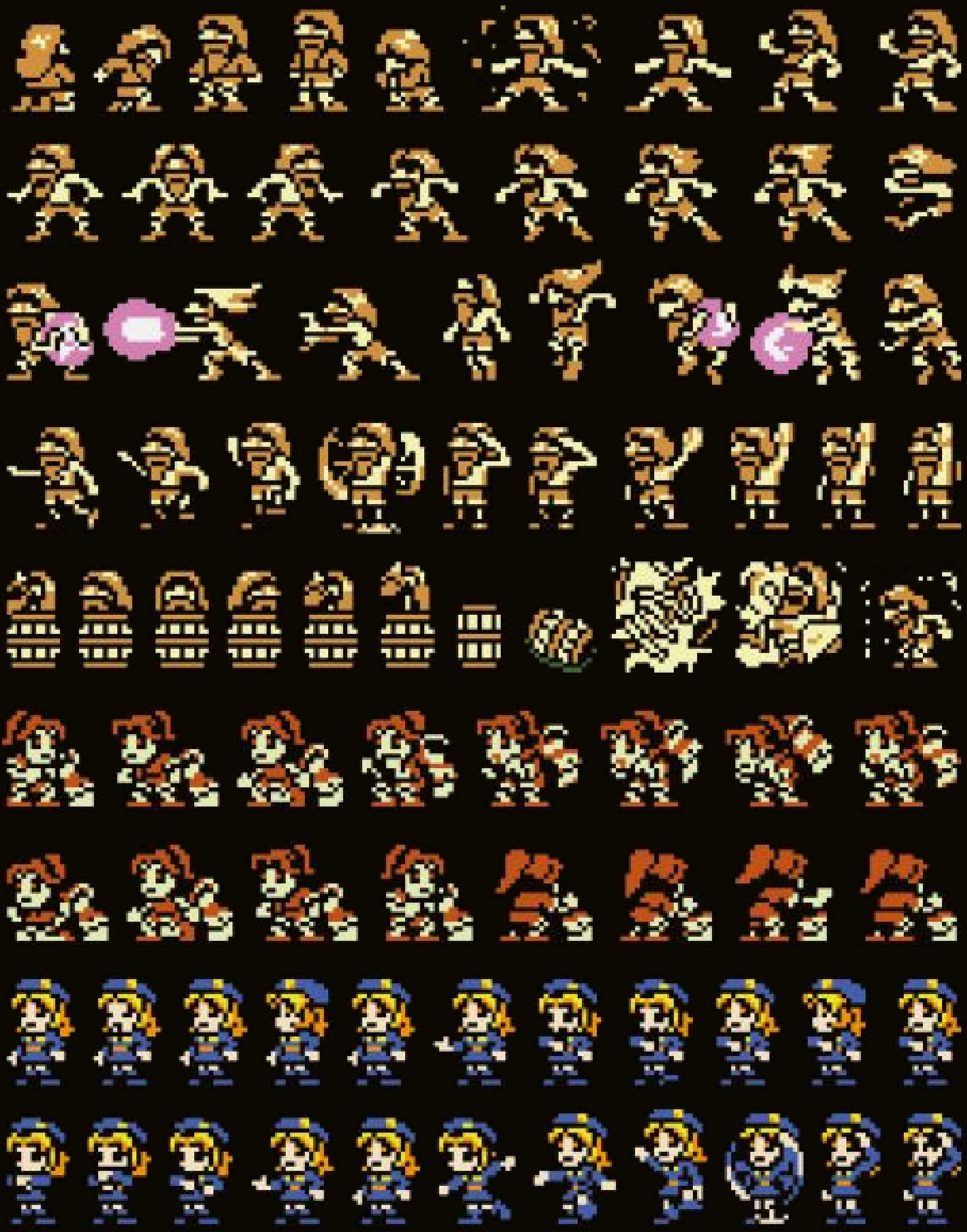


Ground Cannon

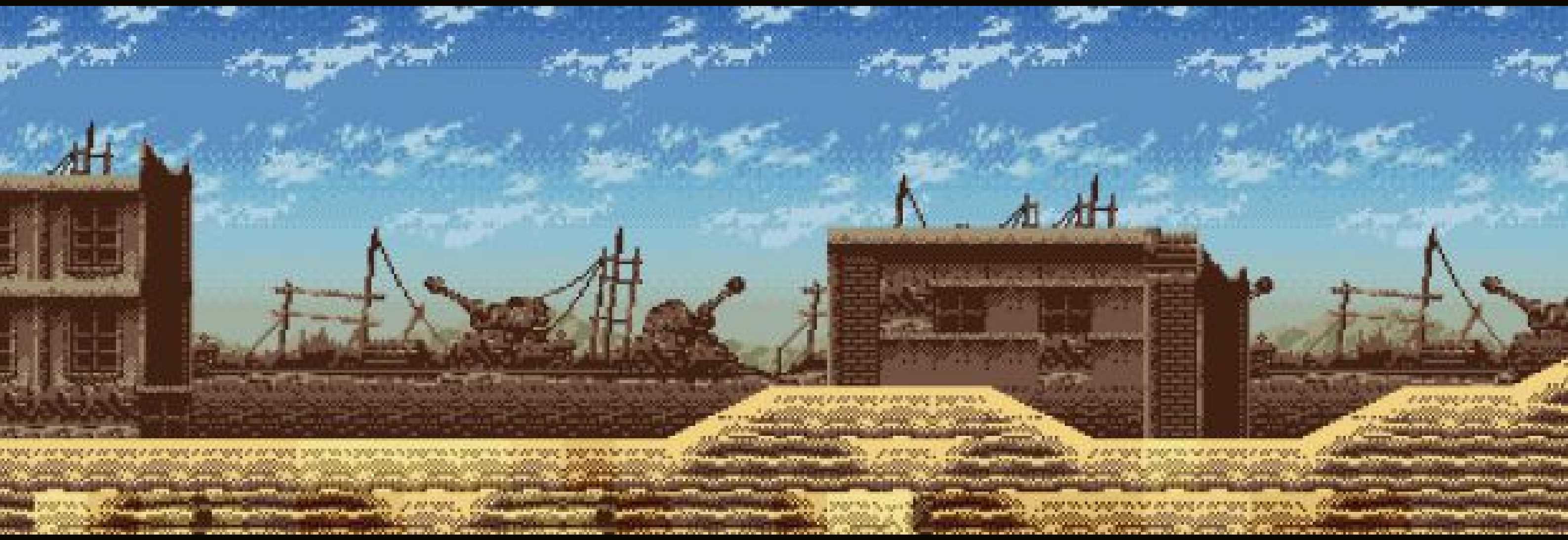
Assorted Rebel Soldier sprite animations. What's presented here is just a small selection of the detailed movements that each type of soldier possesses.

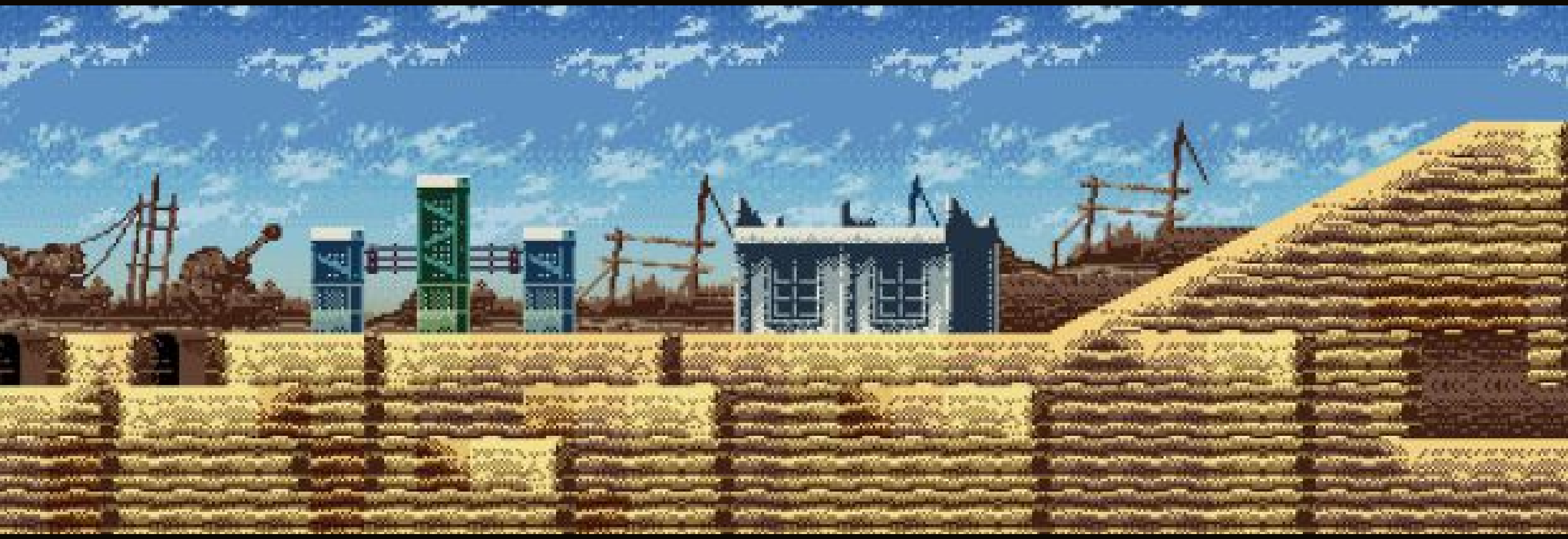


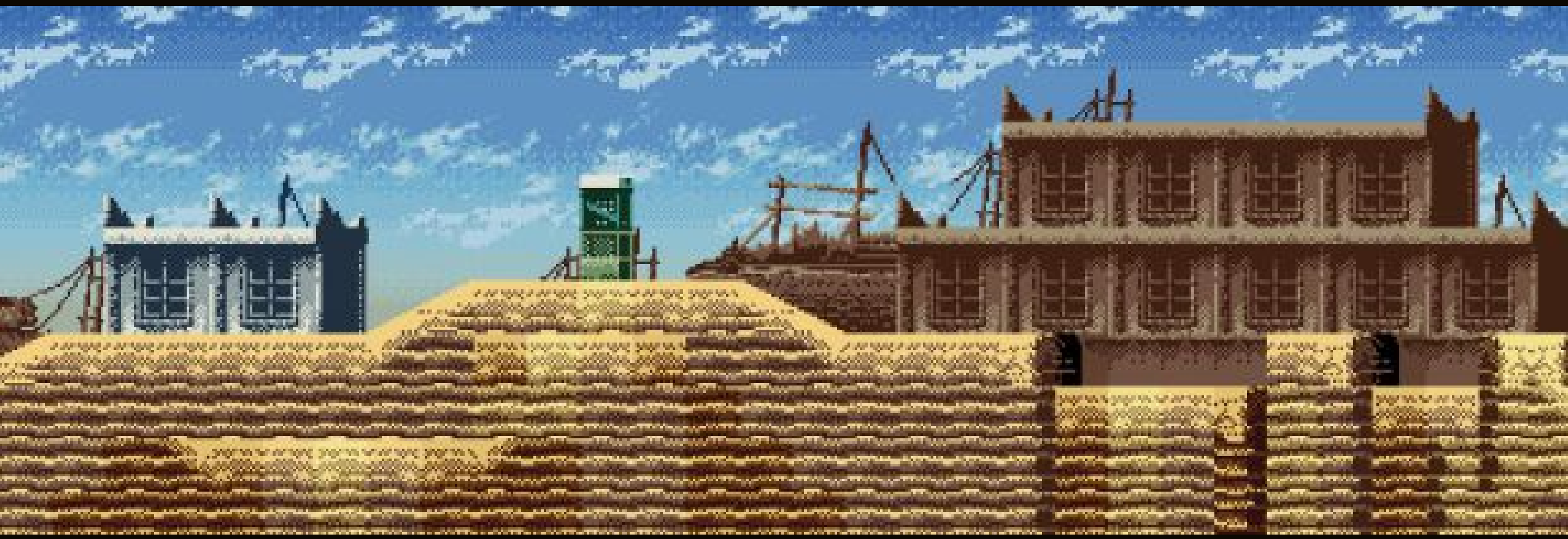
Various NPC sprite animations from *Metal Slug 2nd Mission*, featuring iconic characters such as Hyakutaro Ichimonji, Rumi Aikawa and Sophia Greenville. All are still instantly recognisable, despite the reduced resolution of the NEOGEO Pocket Color.

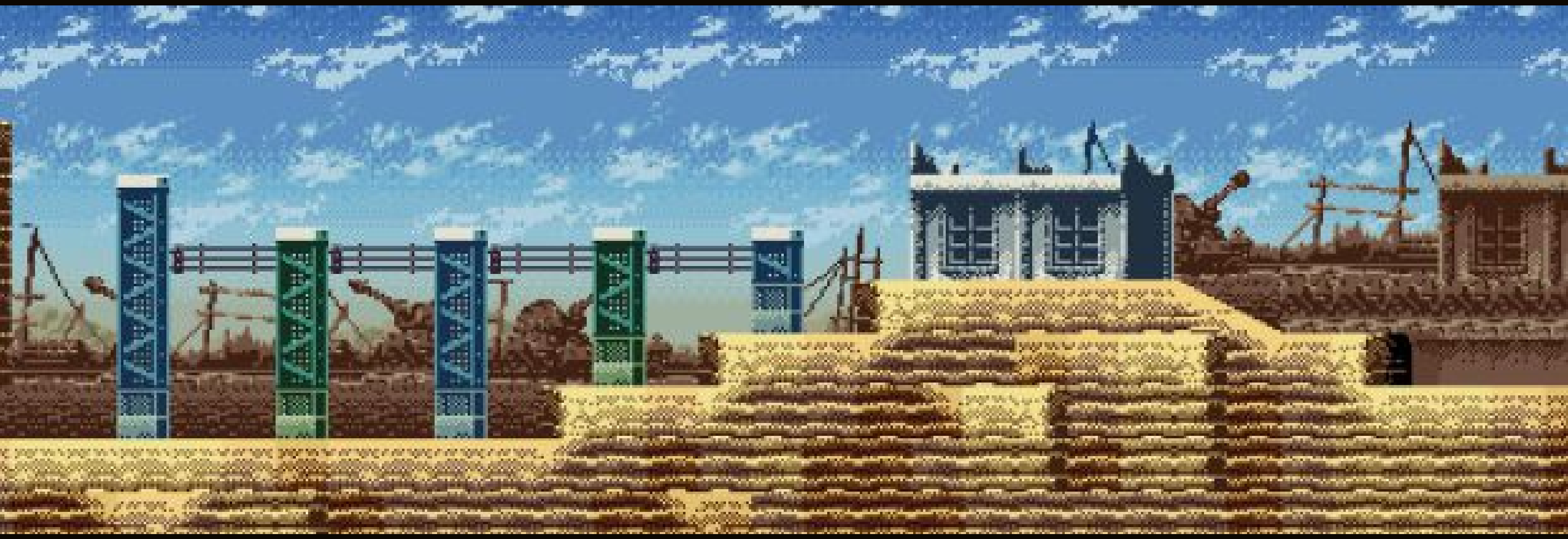


Although naturally scaled down, the background art in *Metal Slug 2nd Mission* by Sadaki Matsumoto is still impressive. Despite the low resolution and obvious colour restrictions of the NEOGEO Pocket Color system, the essence of Metal Slug is retained and the limited palette actually helps in recreating the gritty industrial backdrops.









First released: 2002 / Players: 2 / Developed by: Mega Enterprise and Noise Factory / Published by: SNK

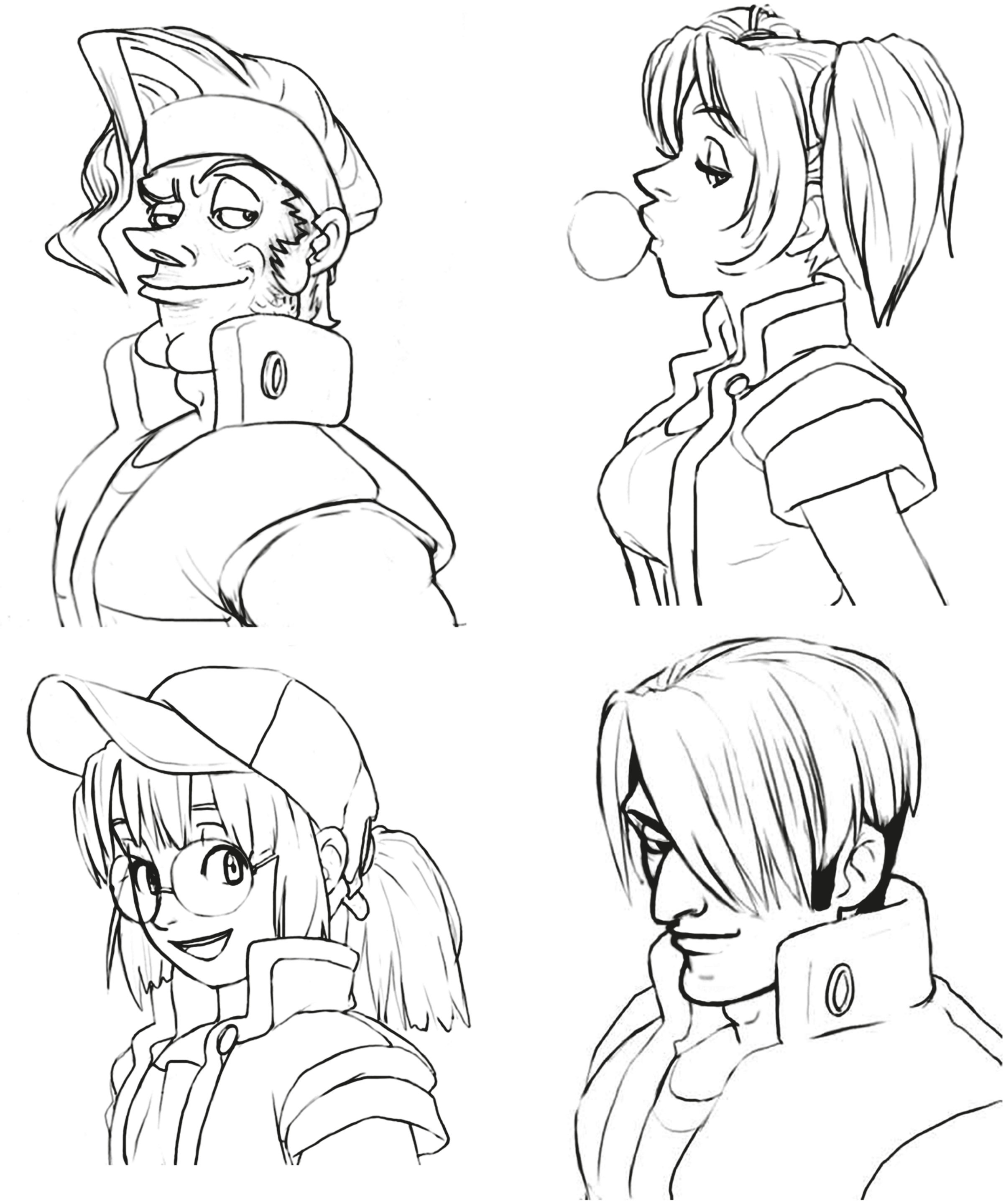
METAL SLUG 4
TM

ARC NG SWITCH PS2 PS3

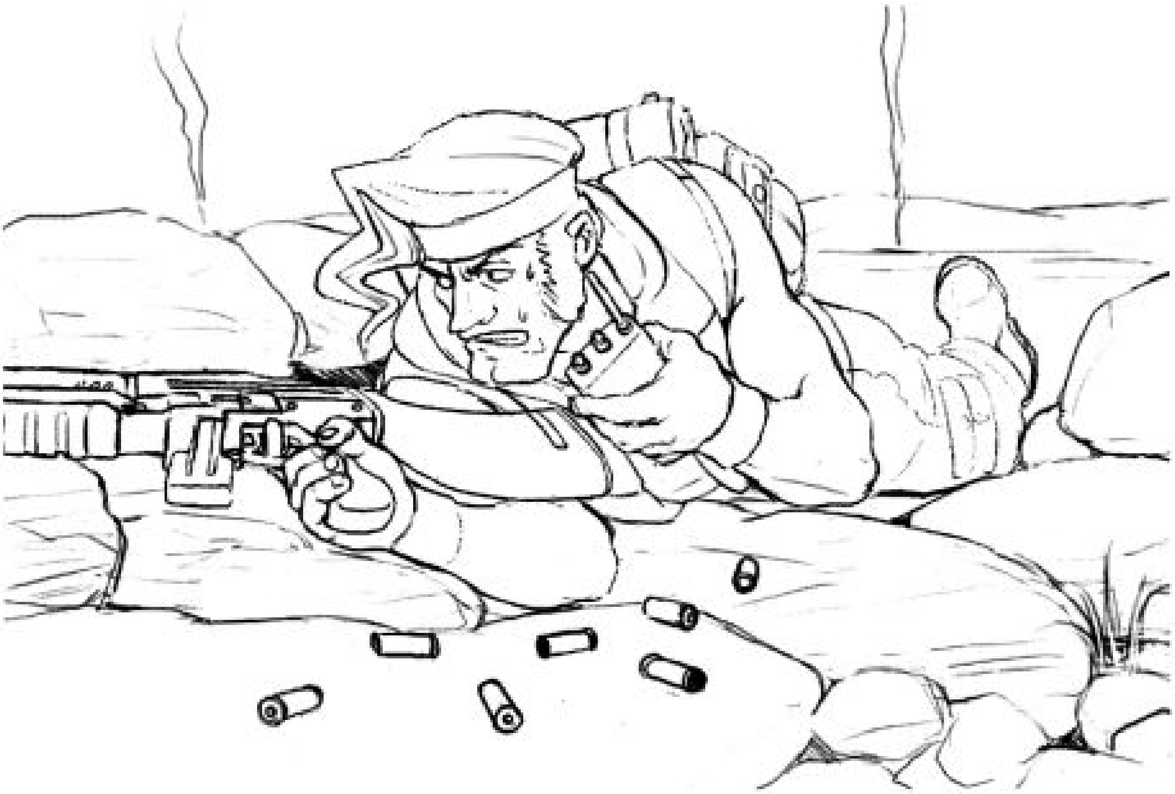
PS4 WII XBOX ONE

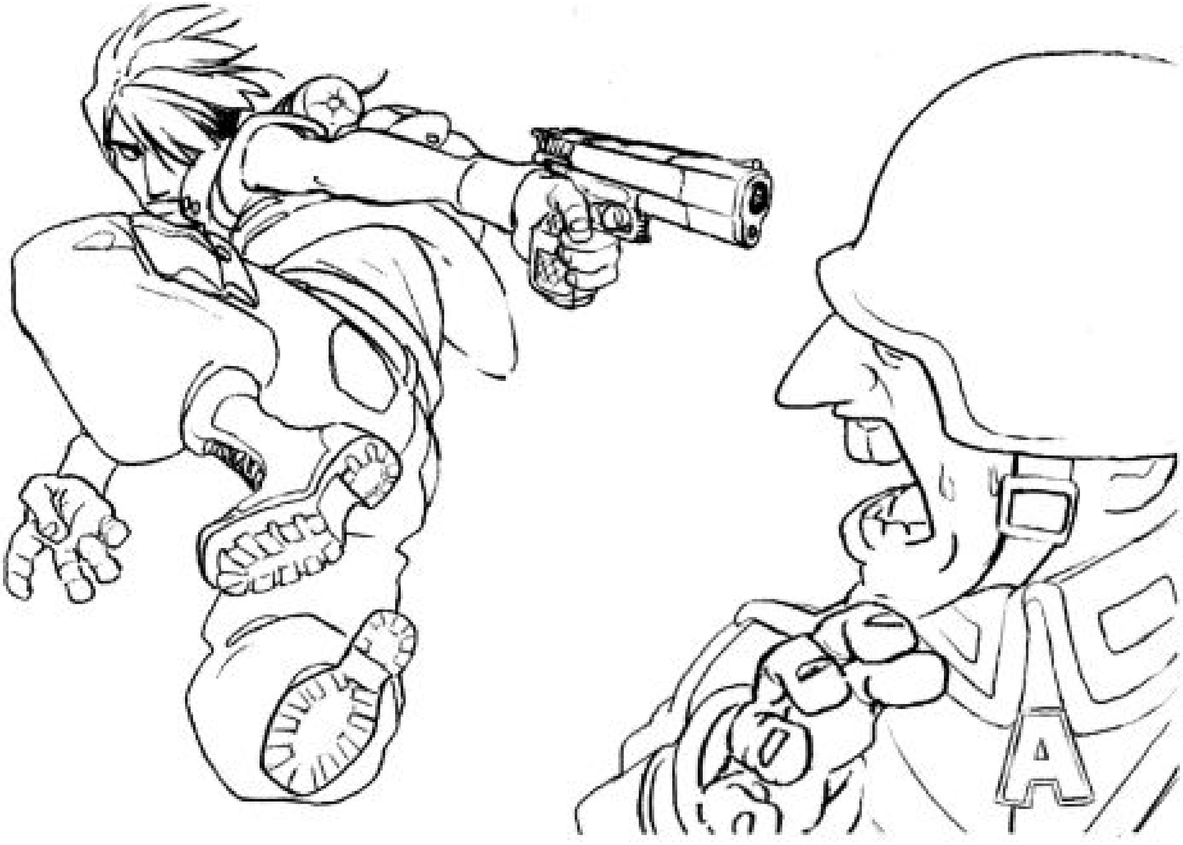
Metal Slug 4 was the first title in the series to be created after the bankruptcy of SNK in October 2001. It was therefore developed as a joint venture between Mega Enterprise, a Korean publisher which had retained the rights to distribute SNK's games in that region, and Japanese developer Noise Factory, which produced the music for *Metal Slug 3*. On the gameplay front, things remained largely the same, with a lot of elements – such as the sprite used for the new 'monkey' transformation and the Bradley vehicle – having been taken from older entries. New characters Trevor Spacey and Nadia Cassel joined Marco and Fio as playable characters; Tarma and Eri still appeared, but were not playable.

These pencil sketch portraits of the main protagonists in *Metal Slug 4* would later be added into the game via the character selection screen.

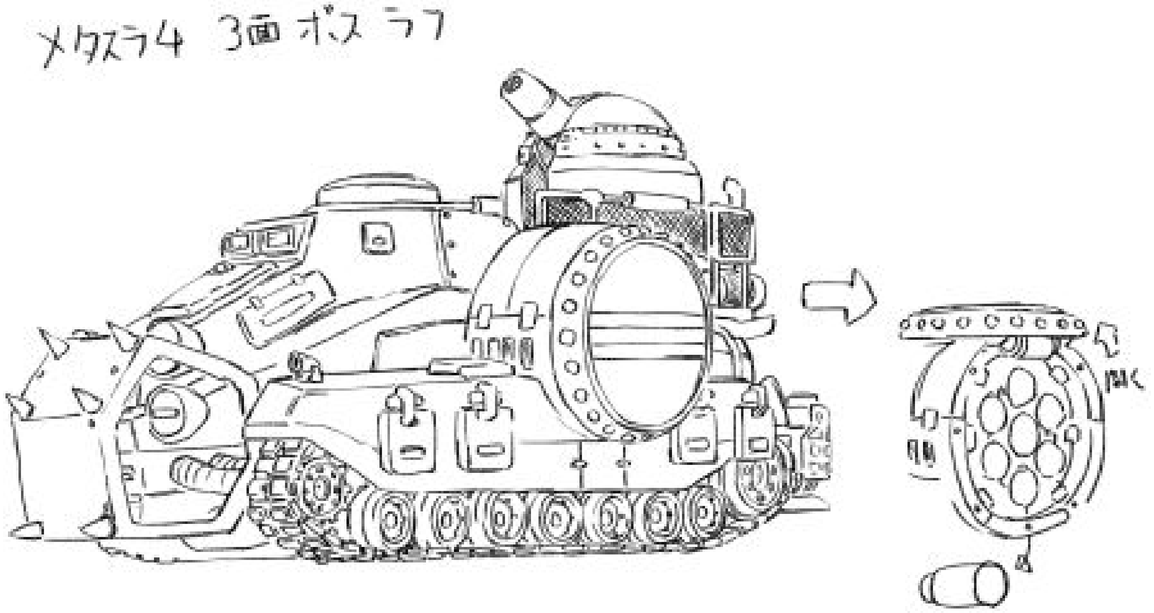


Sadly, there isn't a wealth of concept art for *Metal Slug 4*, but these sketches depict scenes from within the game and intro sequence.

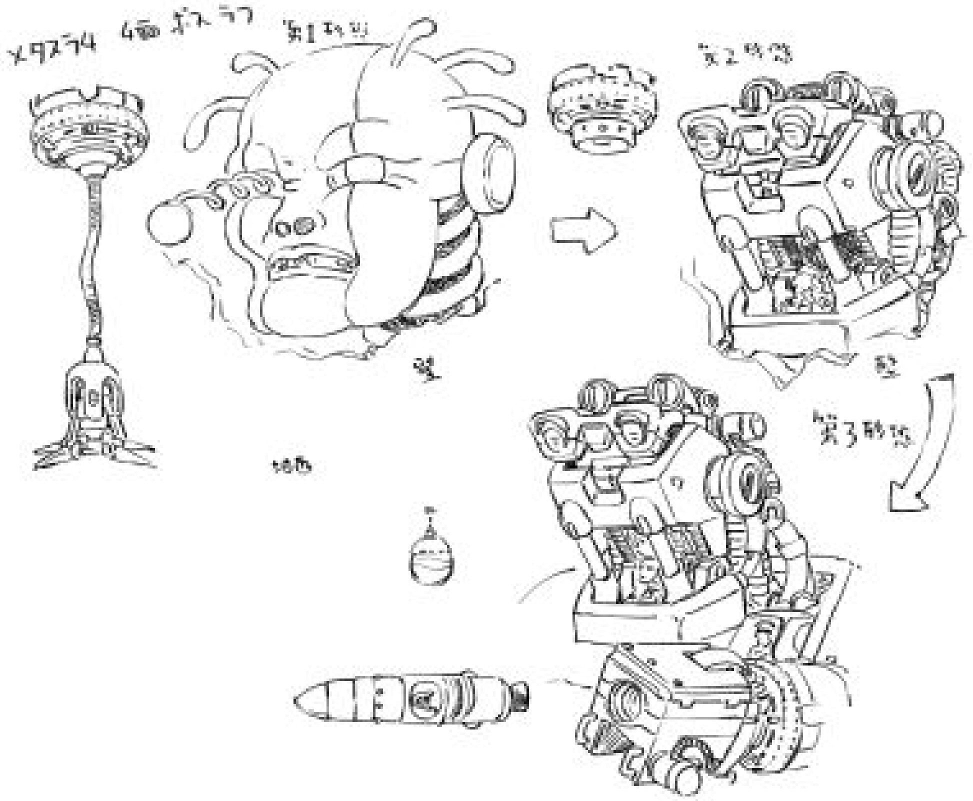




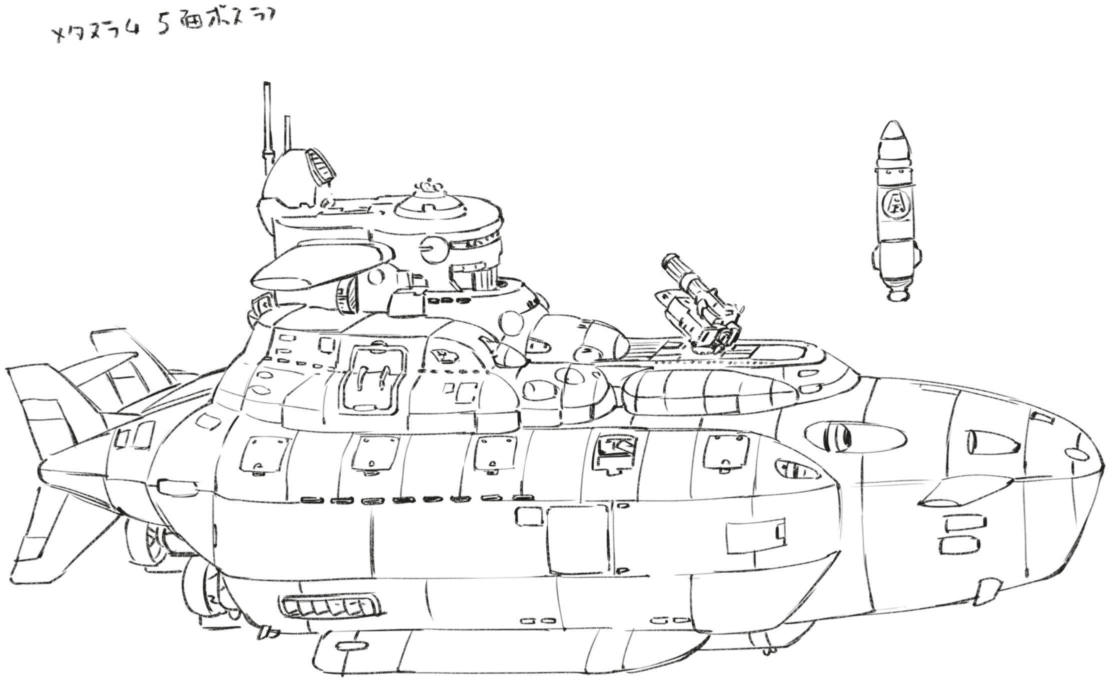
These concept sketches are all that exist when it comes to documenting the genesis of the bosses in *Metal Slug 4*. In true Metal Slug fashion, the bosses were pretty outrageous – most notably the Amadeus Mother Computer, controlled by Manfred Amadeus. Note the image of Marco to illustrate the scale!


メタスラ4　3面ボスラフ
開く

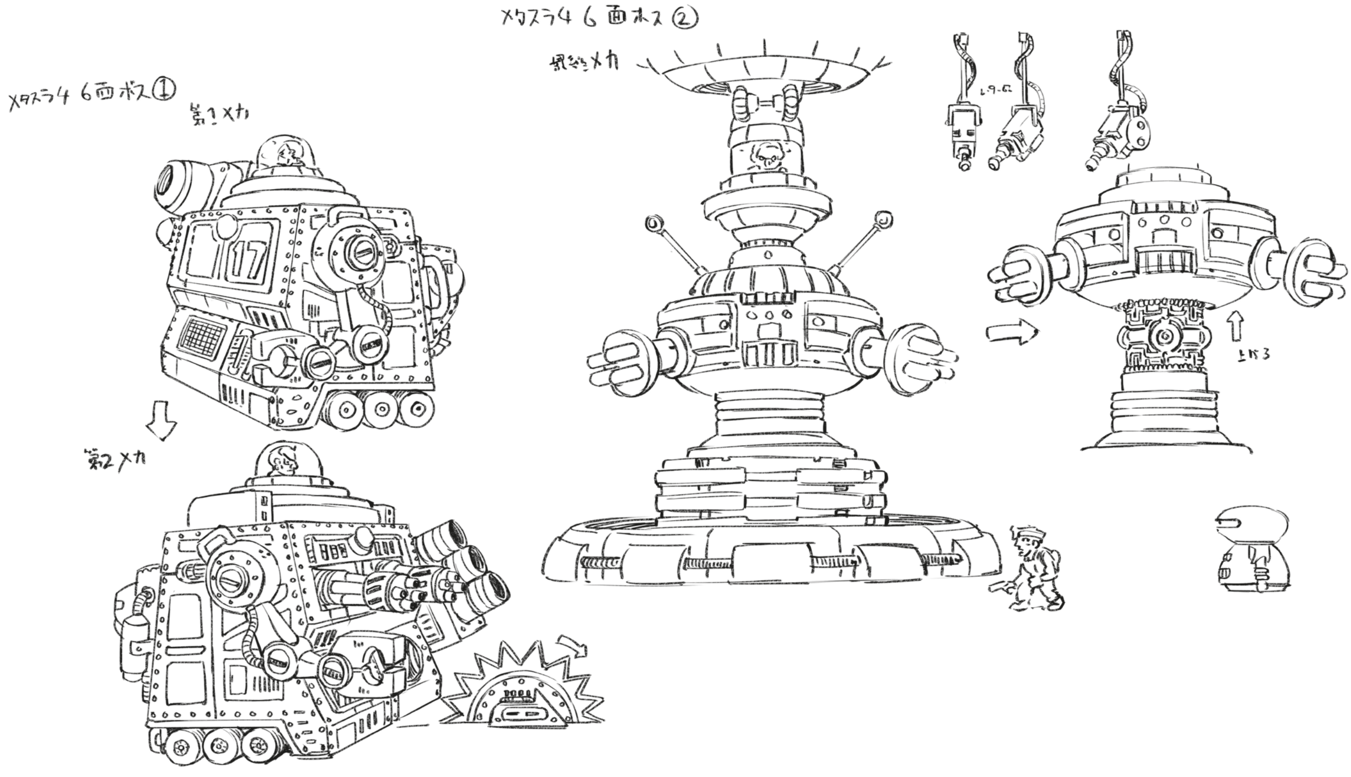
The Iron (Mission 3 boss)


メタスラ4　4面ボスラフ
第1形態
第2形態
壁
壁
地面
第3形態

Big John (Mission 4 boss)

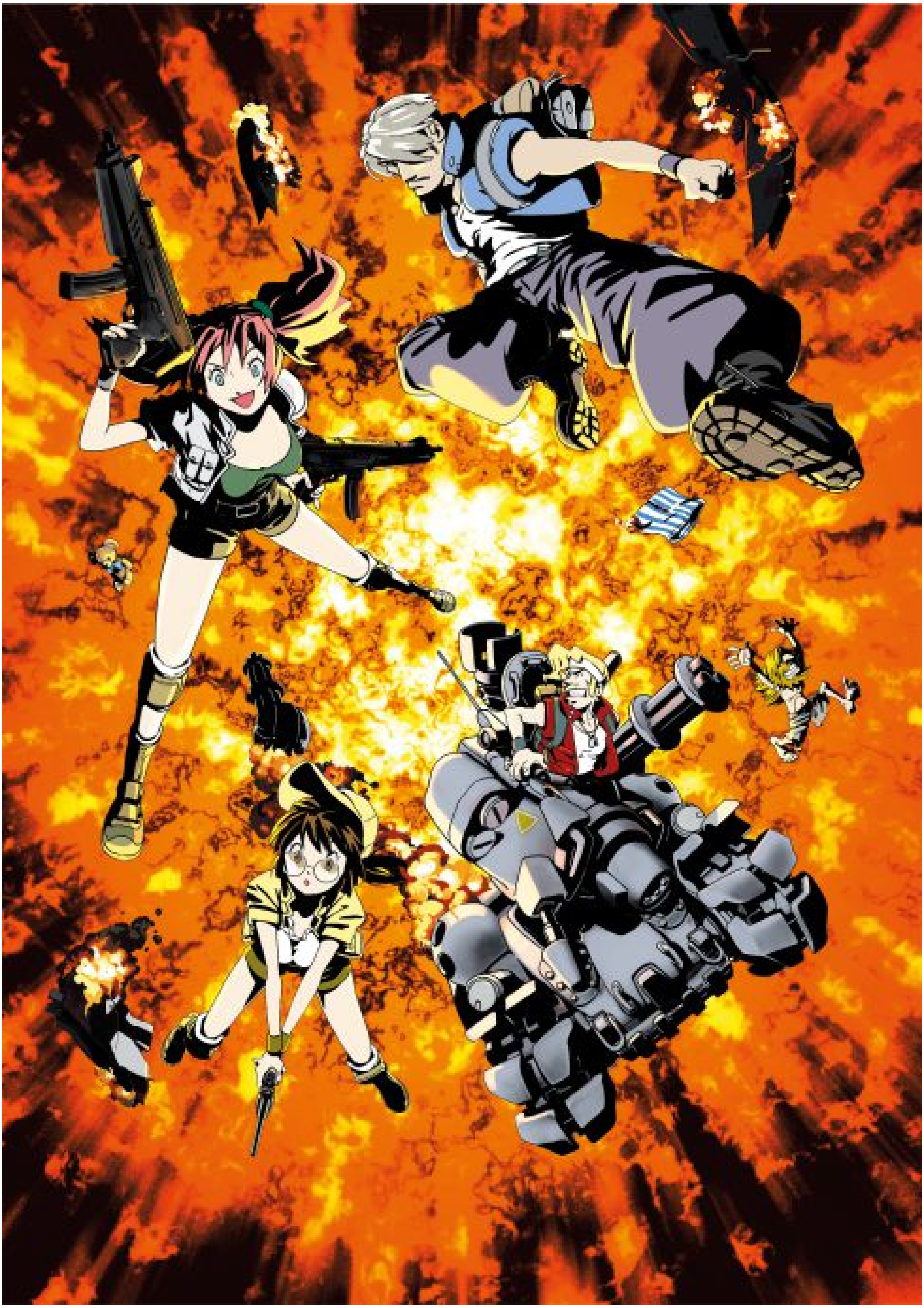

メタスラ4 5面ボスラフ

Sea Satan (Mission 5 boss)

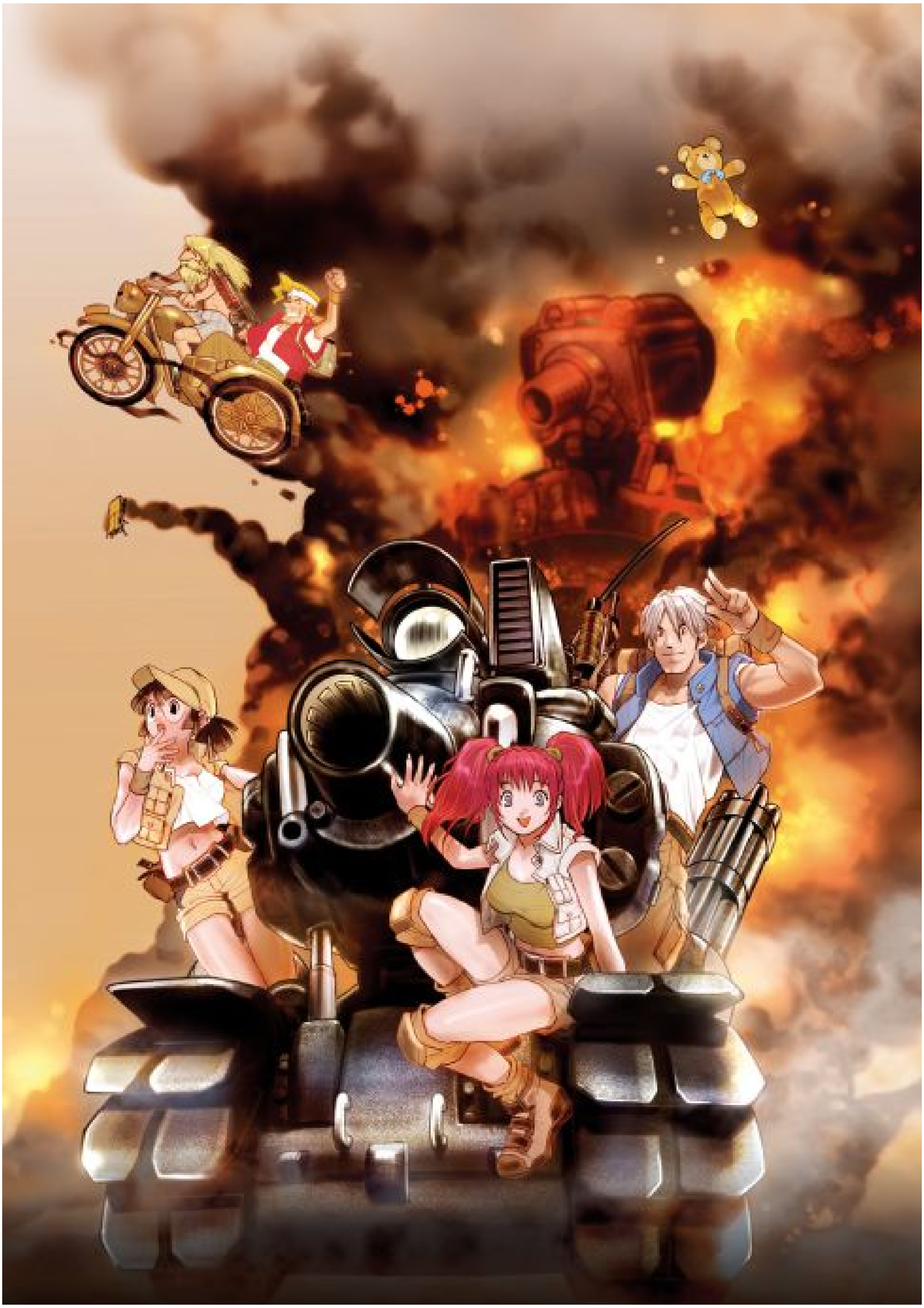

メタスラ4 6面ボス①
第1メカ
第2メカ
メタスラ4 6面ボス②
最終メカ
レーザー
上げる

Amadeus Mother Computer (Final Mission boss)

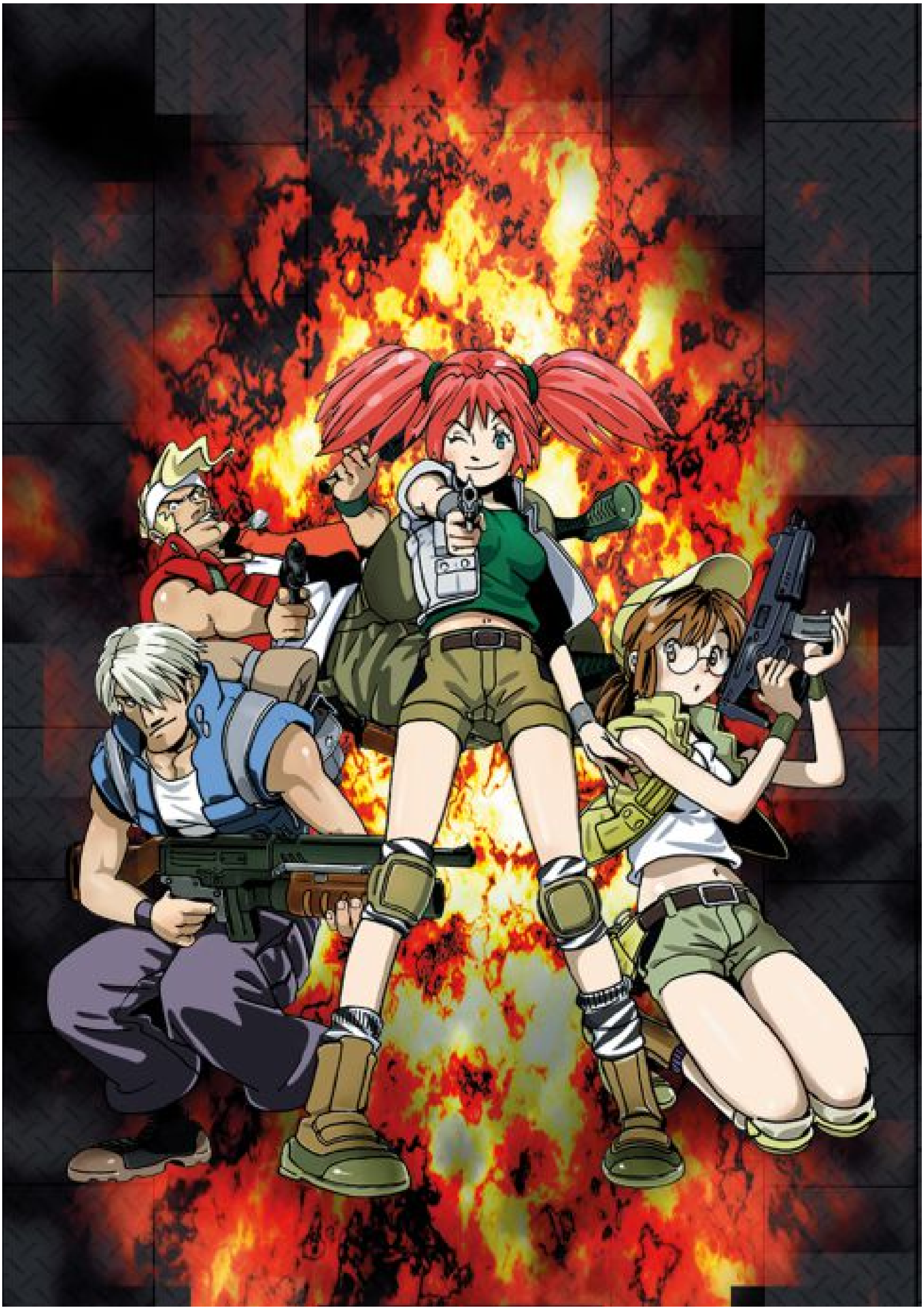
This dramatic NEOGEO cover art for *Metal Slug 4* is by in-house artist TONKO. The four main playable characters are seen flying towards the viewer, as if driven by the vibrant explosion in the background.



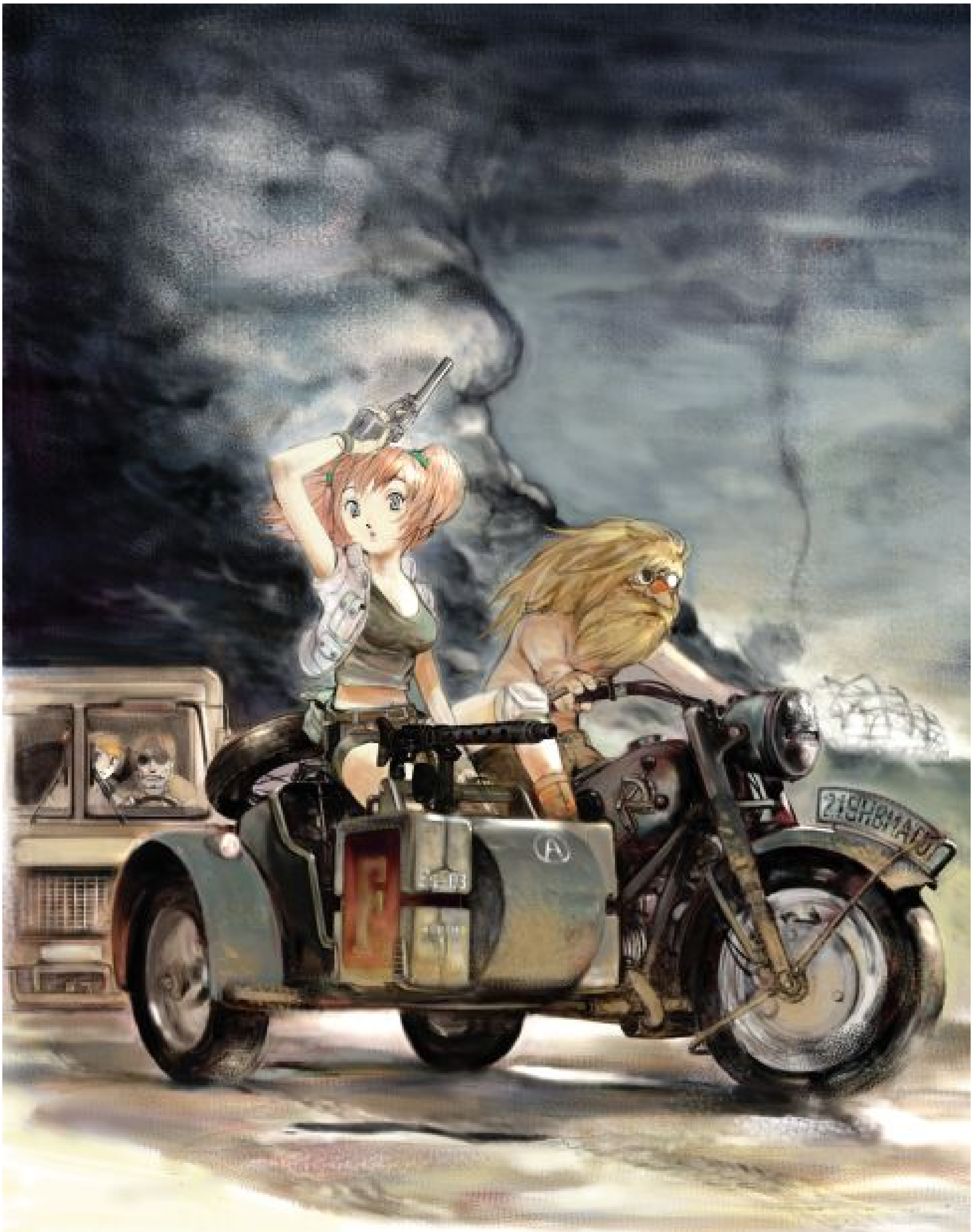
The Sony PlayStation 2 cover for *Metal Slug 4* features a totally new piece of artwork and is visually similar to the cover of *Metal Slug 2*. Again by TONKO, this slightly less intense piece nonetheless perfectly conveys the essence of Metal Slug, with the iconic SV-001 taking centre stage.

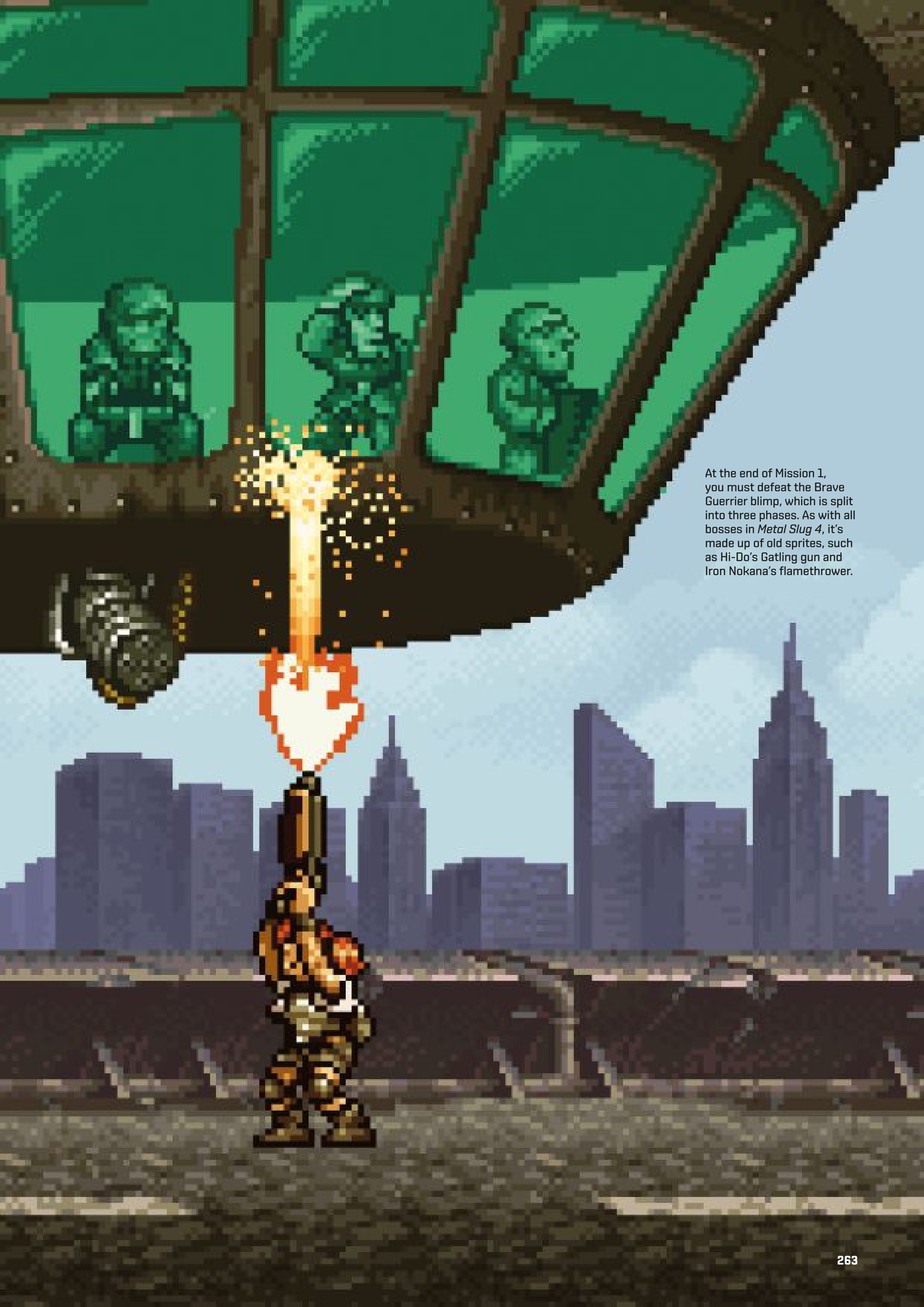


Additional artwork from *Metal Slug 4* for the MVS arcade kit and NEOGEO manual. The SNK art team this time decided to make new girl Nadia Cassel the main focal point.

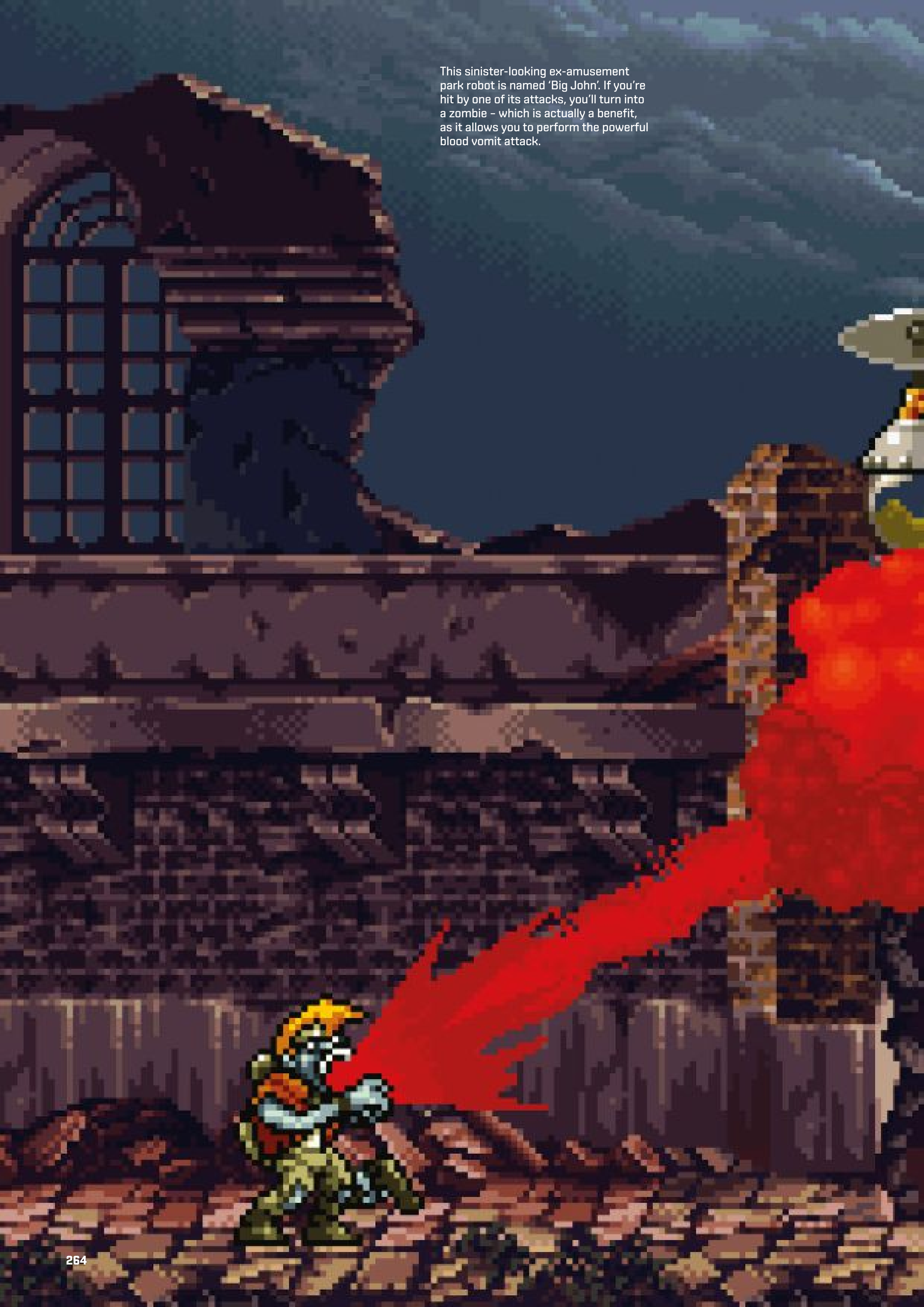


Created for a magazine advertisment and, sadly, never used, this piece of artwork did, however, appear on the reverse of the NEOGEO manual. It depicts Nadia Cassel riding in the sidecar with POW, Hyakutaro Ichimonji inspired by a scene from the first mission.

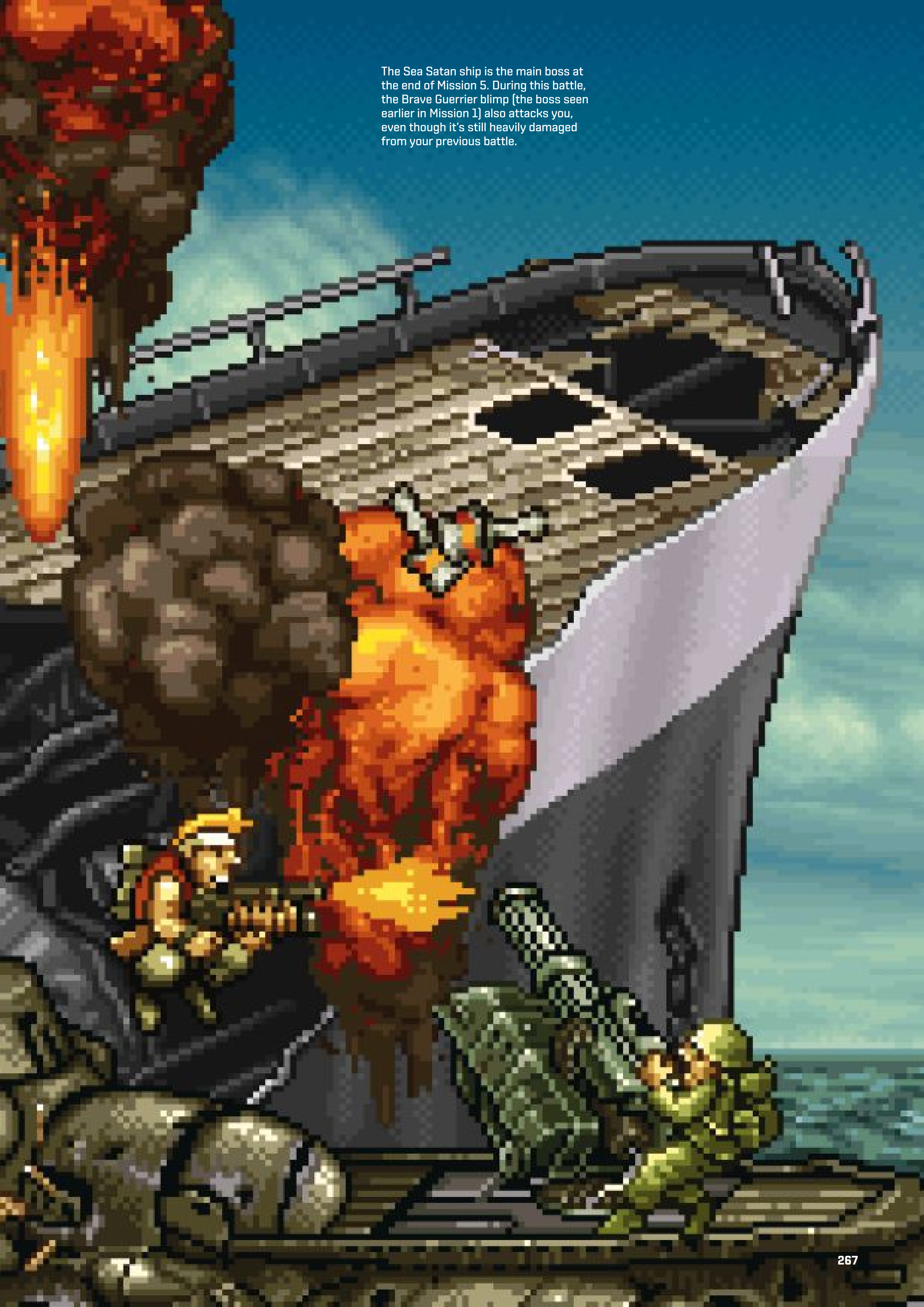




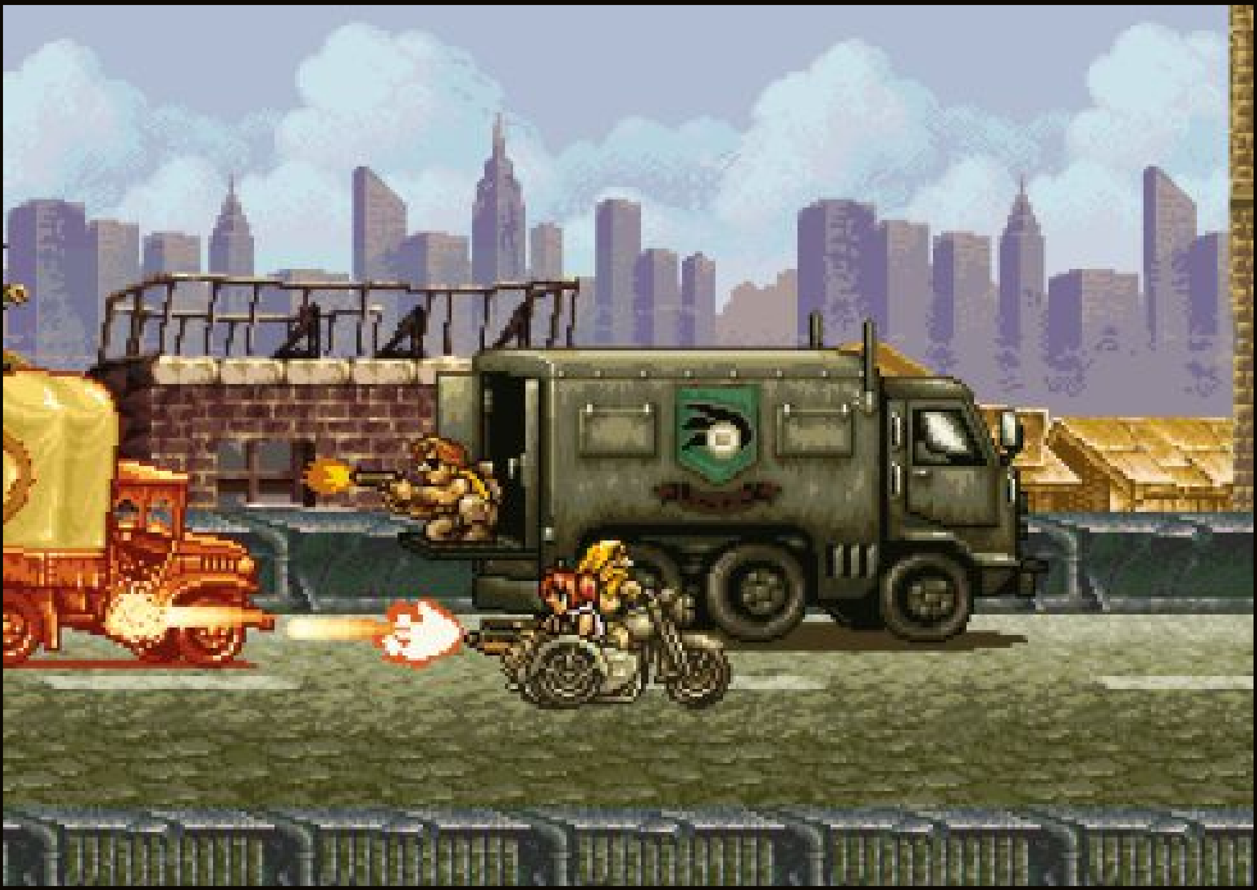
At the end of Mission 1, you must defeat the Brave Guerrier blimp, which is split into three phases. As with all bosses in *Metal Slug 4*, it's made up of old sprites, such as Hi-Do's Gatling gun and Iron Nokana's flamethrower.



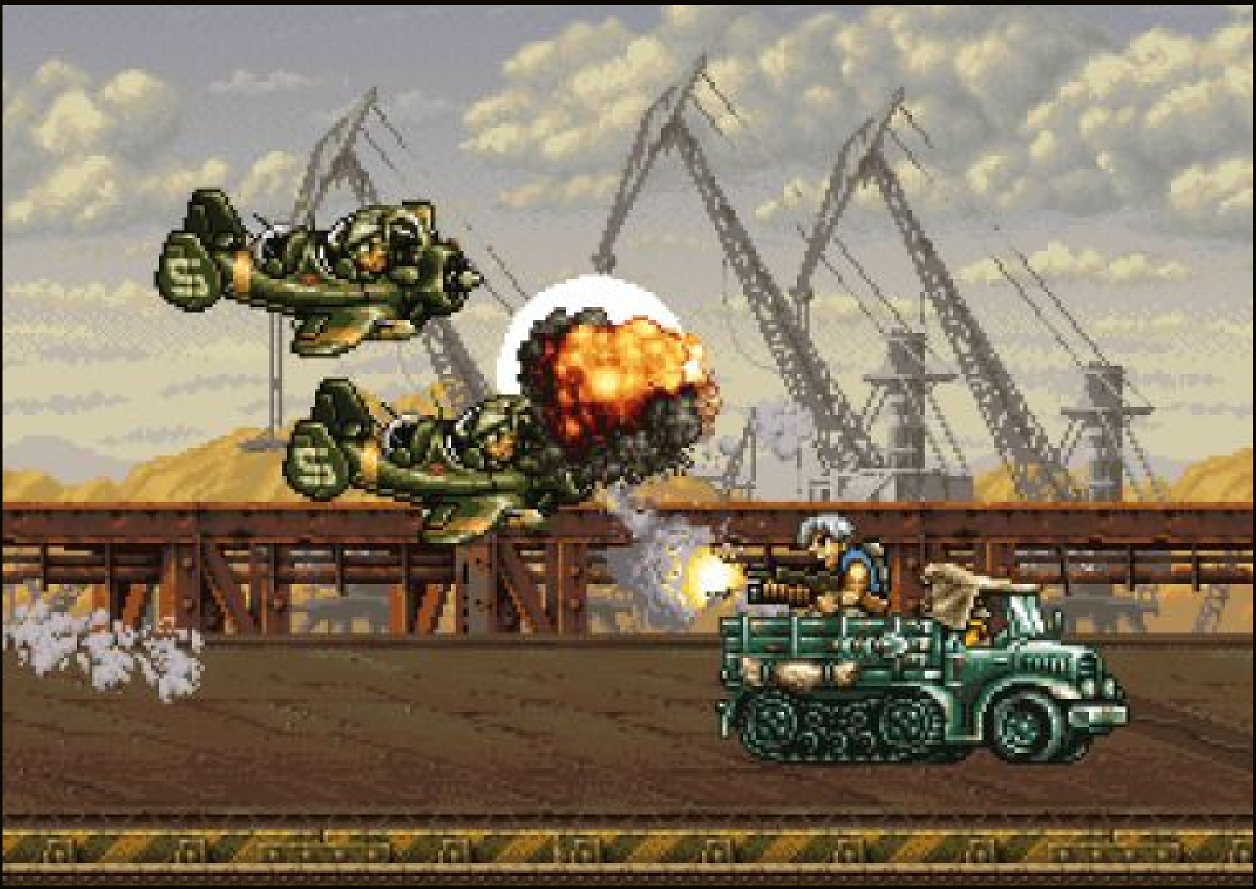
This sinister-looking ex-amusement park robot is named 'Big John'. If you're hit by one of its attacks, you'll turn into a zombie – which is actually a benefit, as it allows you to perform the powerful blood vomit attack.



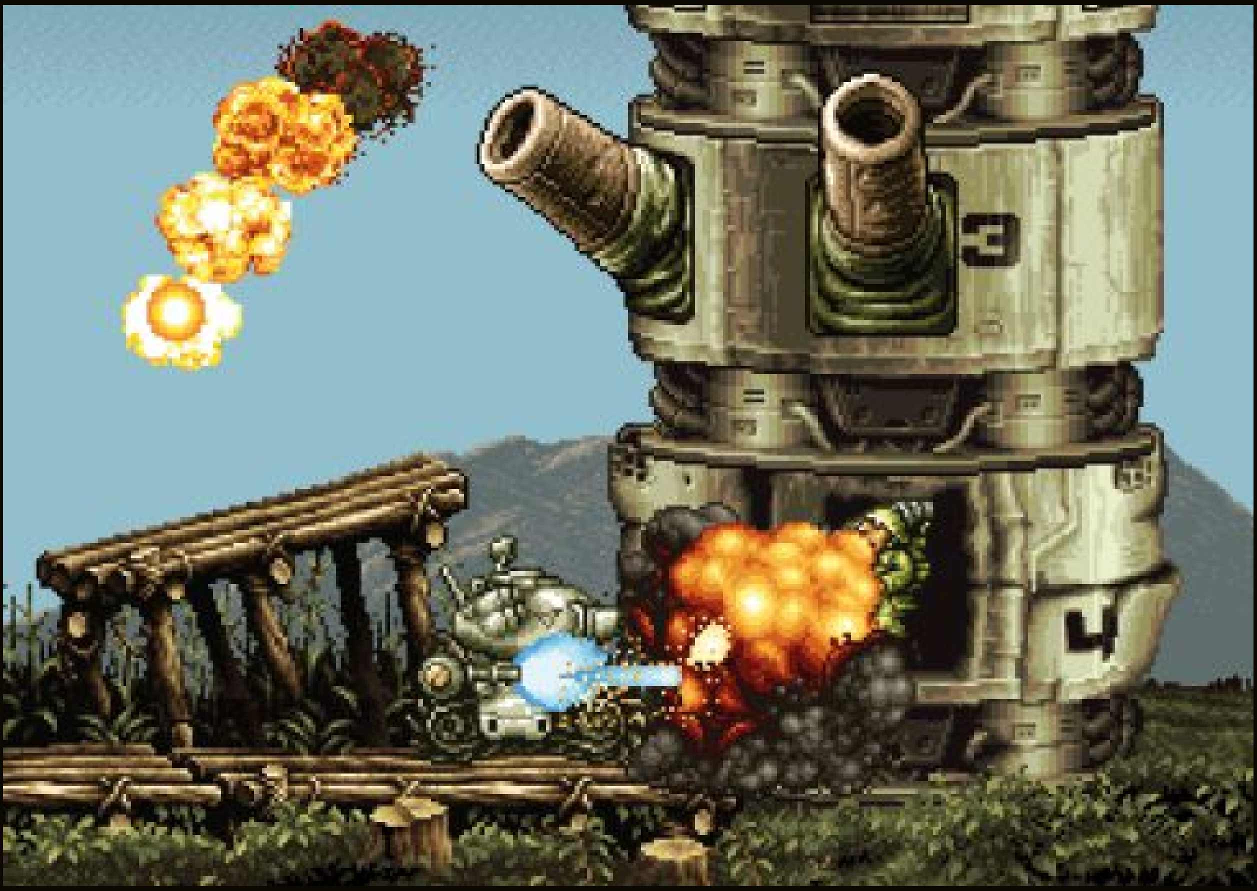
The Sea Satan ship is the main boss at the end of Mission 5. During this battle, the Brave Guerrier blimp (the boss seen earlier in Mission 1) also attacks you, even though it's still heavily damaged from your previous battle.



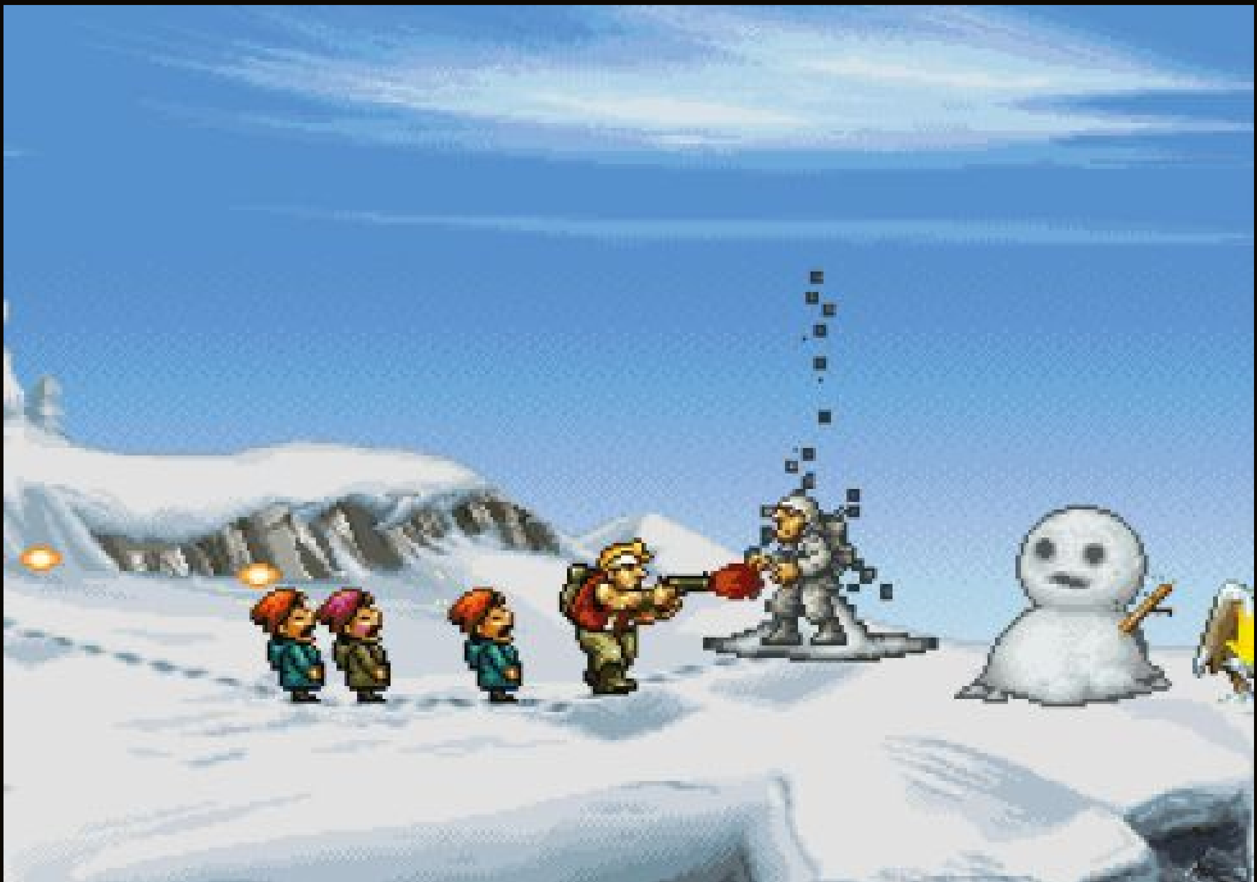
The start of Mission 1 sees you hitching a ride on a POW's motorbike in a fast-scrolling action section. You even get some welcome help from a colleague…



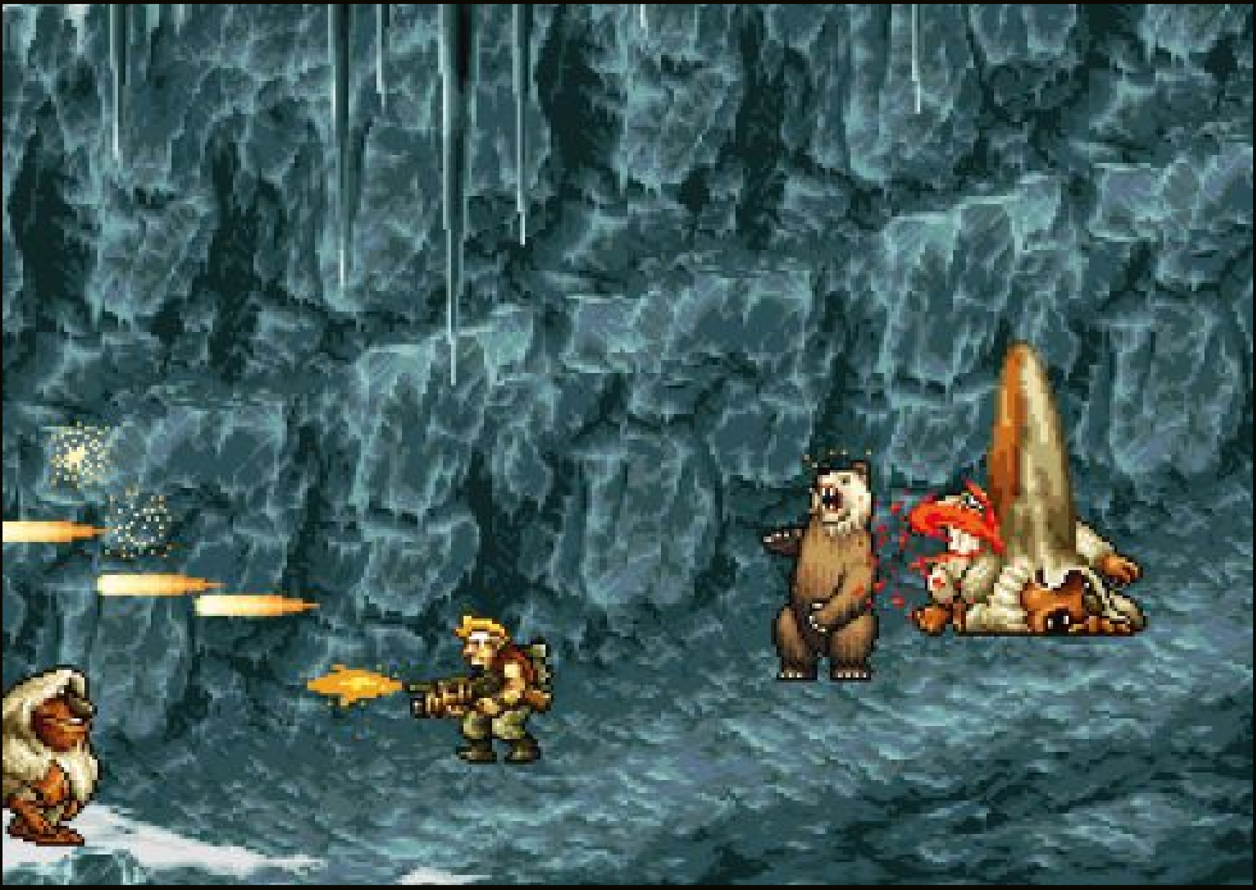
Another intense scrolling action sequence sees you on board a prisoner's Landseek travelling at high speed. Thankfully, the Landseek truck is immune to enemy fire.



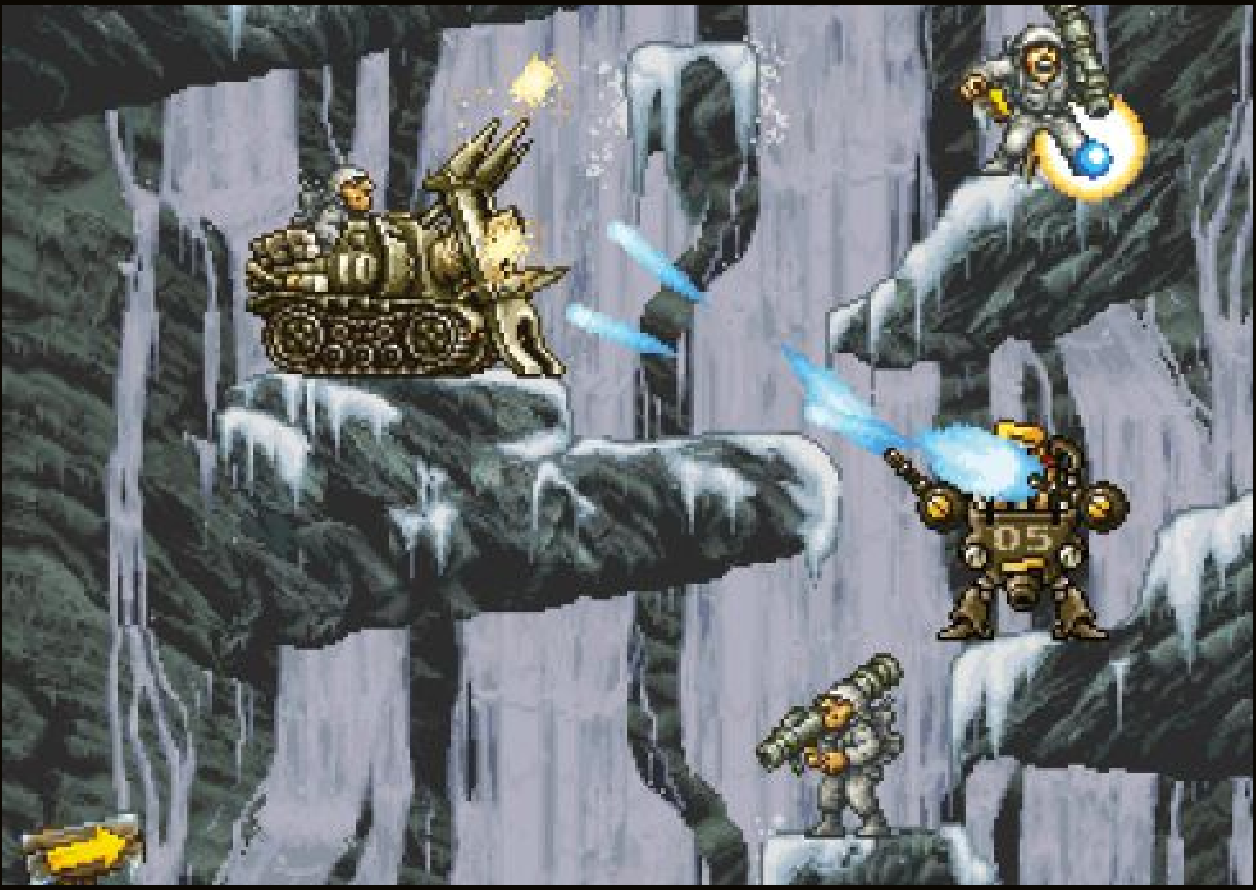
The boss at the end of Mission 2 is the five-storey Toschka Dalanue. When each section is destroyed, you move on to the next one until you reach a giant cannon – armed by none other than Allen O'Neil – at the very top.



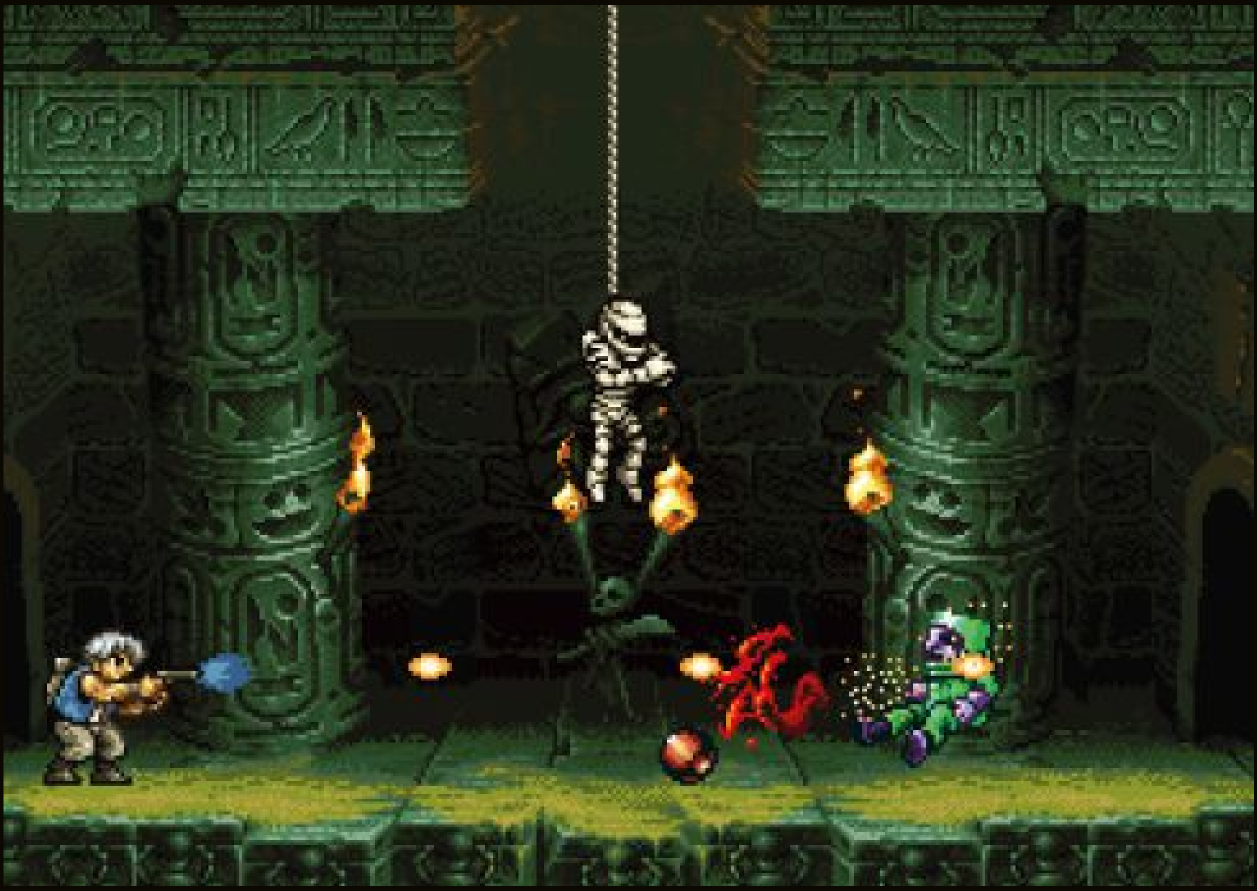
Hiding inside a snowman, these Rebel Soldiers jump out as you approach, much to the displeasure of the small children playing in the snow nearby.



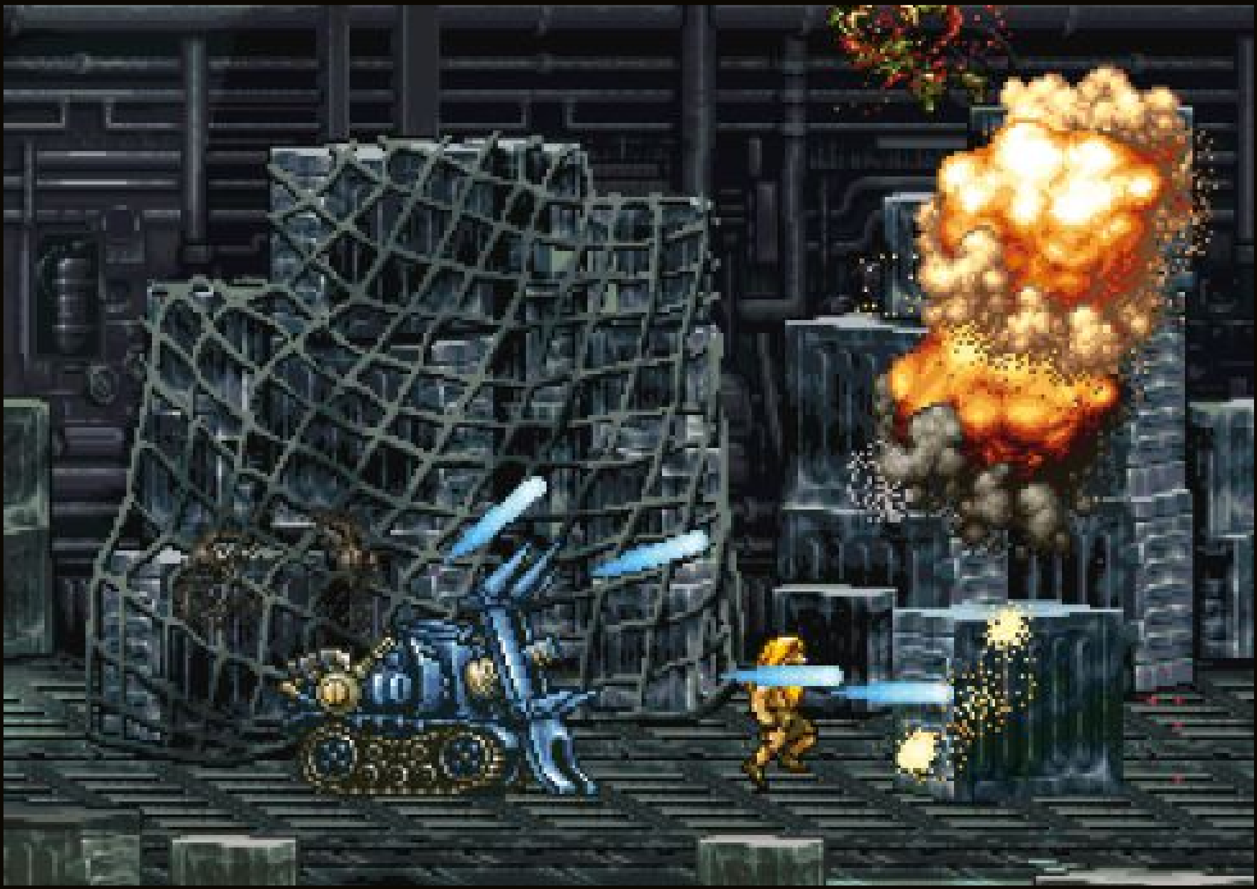
Based on the legend of the Abominable Snowman, the Sasquatch enemy first appeared in *Metal Slug 3*. In typical Metal Slug fashion, coming into contact with the Sasquatch's frosty breath turns you into a snowman!



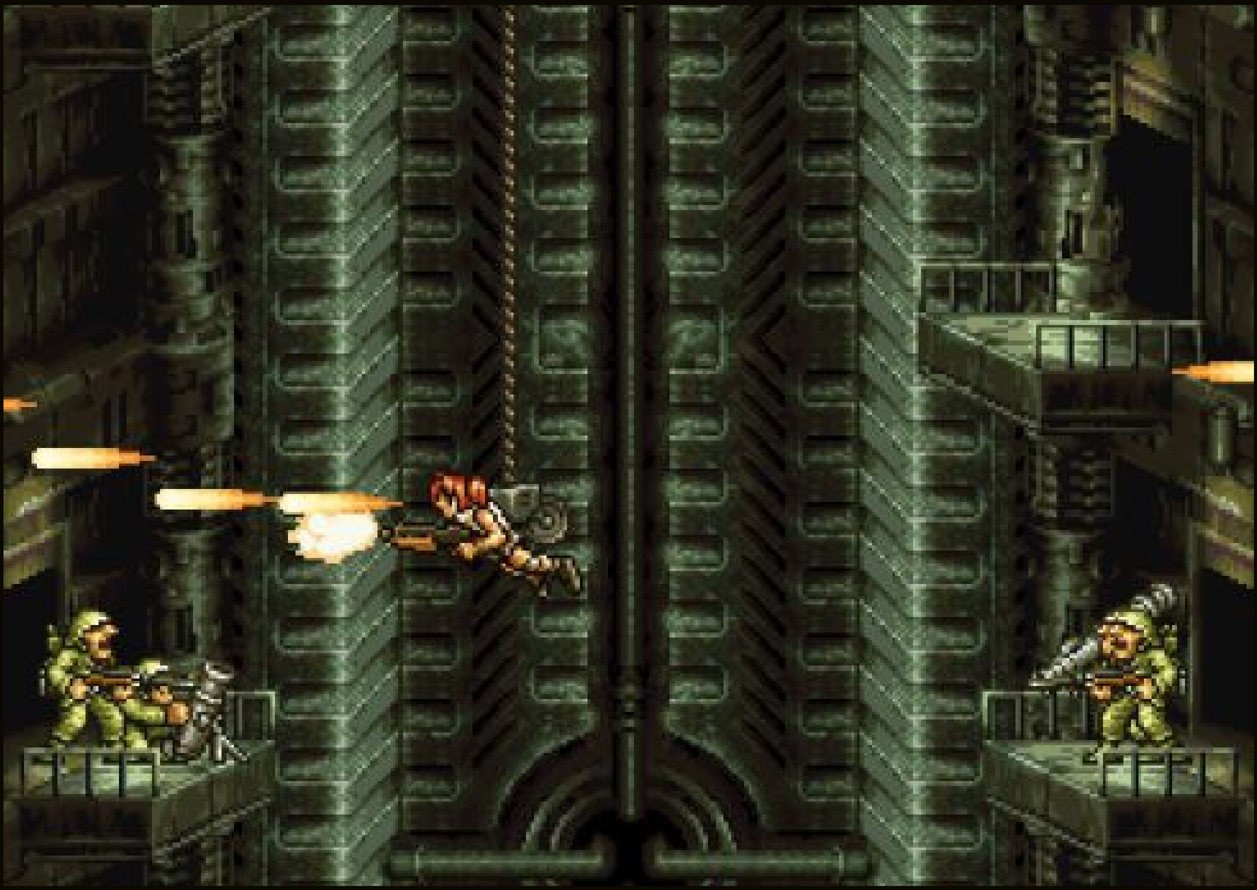
Making your way up these icy platforms in the Slugnoid isn't easy, especially with enemy soldiers and tanks trying to halt your progress. Still, the rotating 360° twin Vulcans are useful for taking out enemies as they come from all angles.



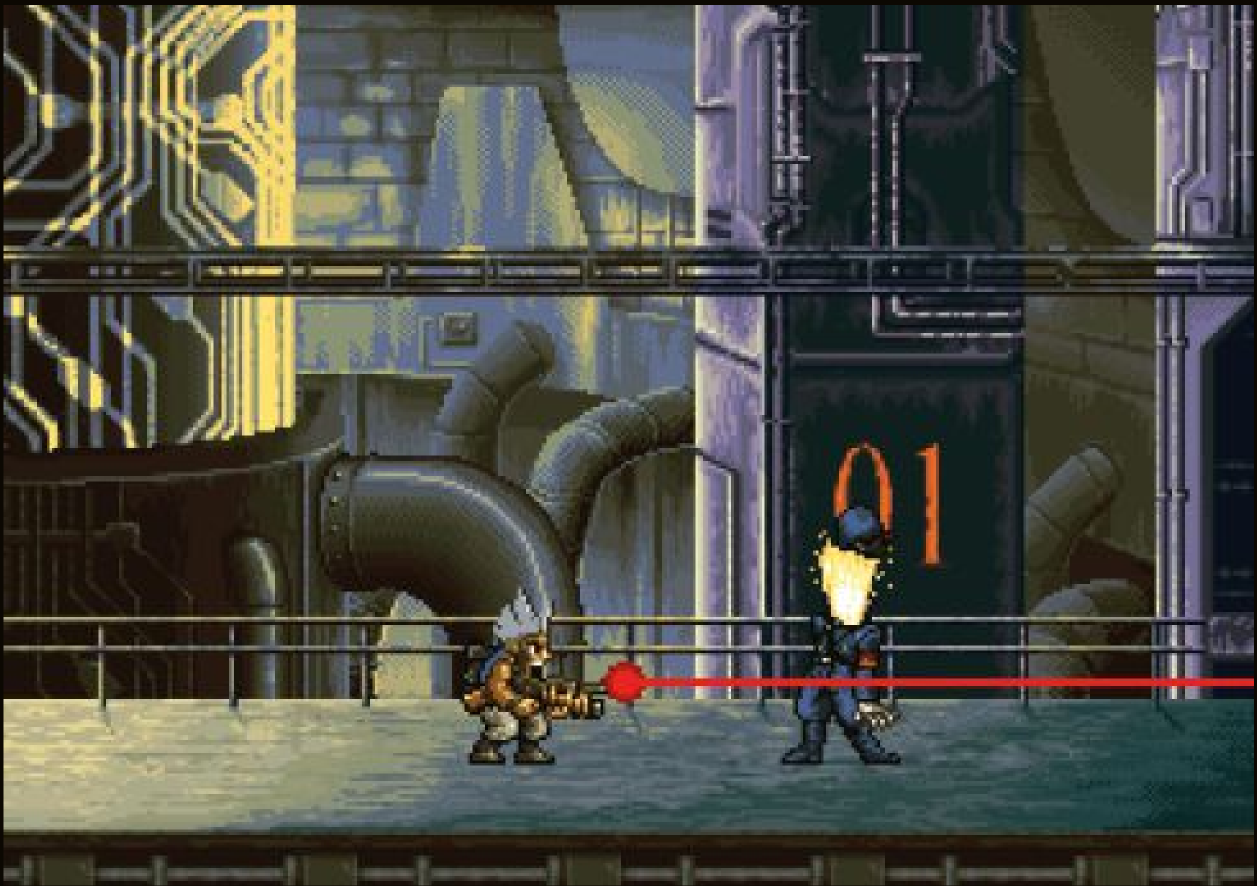
Making their debut in *Metal Slug 4*, the Hazmat Soldiers are the only Rebel troops able to take more than one shot. If killed with the flame shot, they are burned alive and their corpses turn into those of standard Rebel Soldiers.



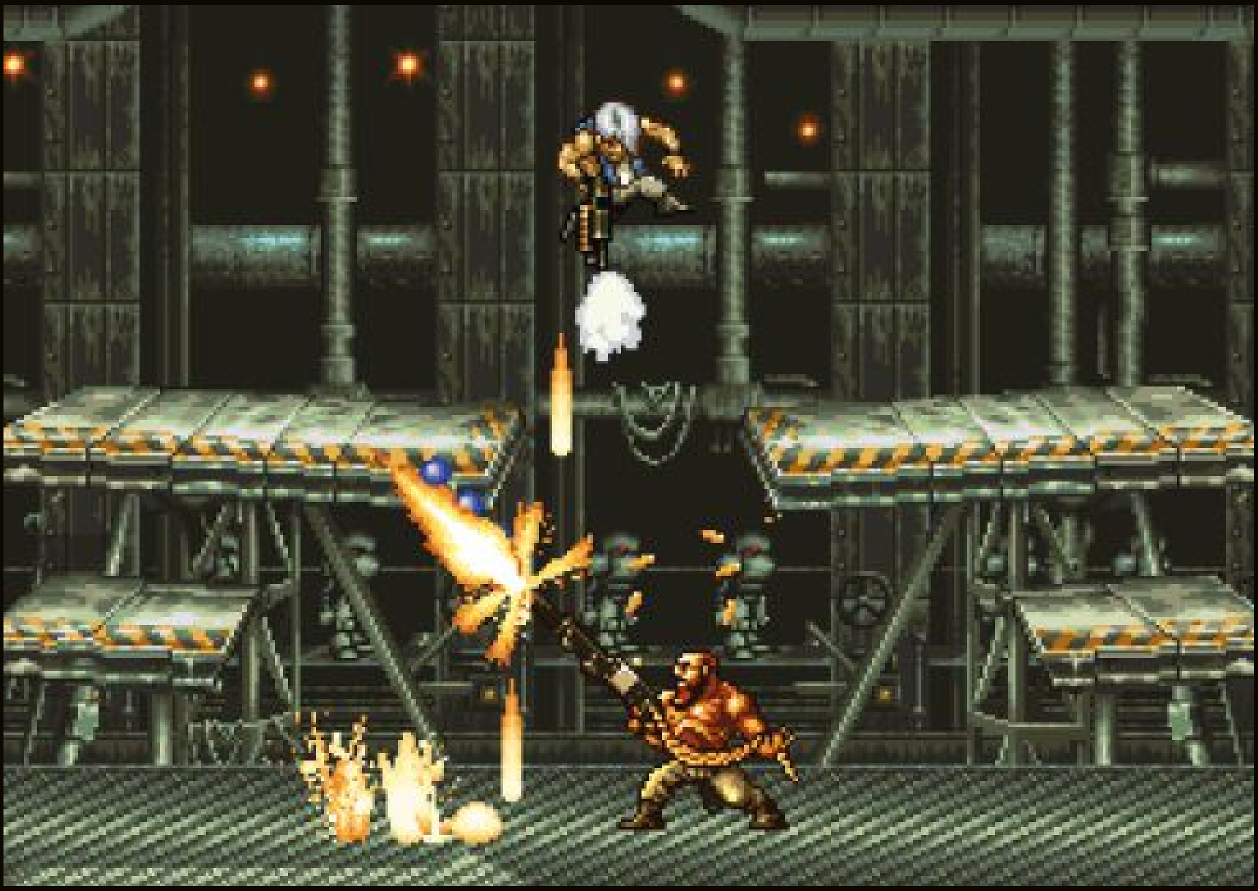
Based on the T-2B Melty Honey, the Metal Claw Slug, out of all the slugs, is capable of withstanding the most damage. Additionally, in contrast to other slugs, its secondary weapon is a powerful homing missile.



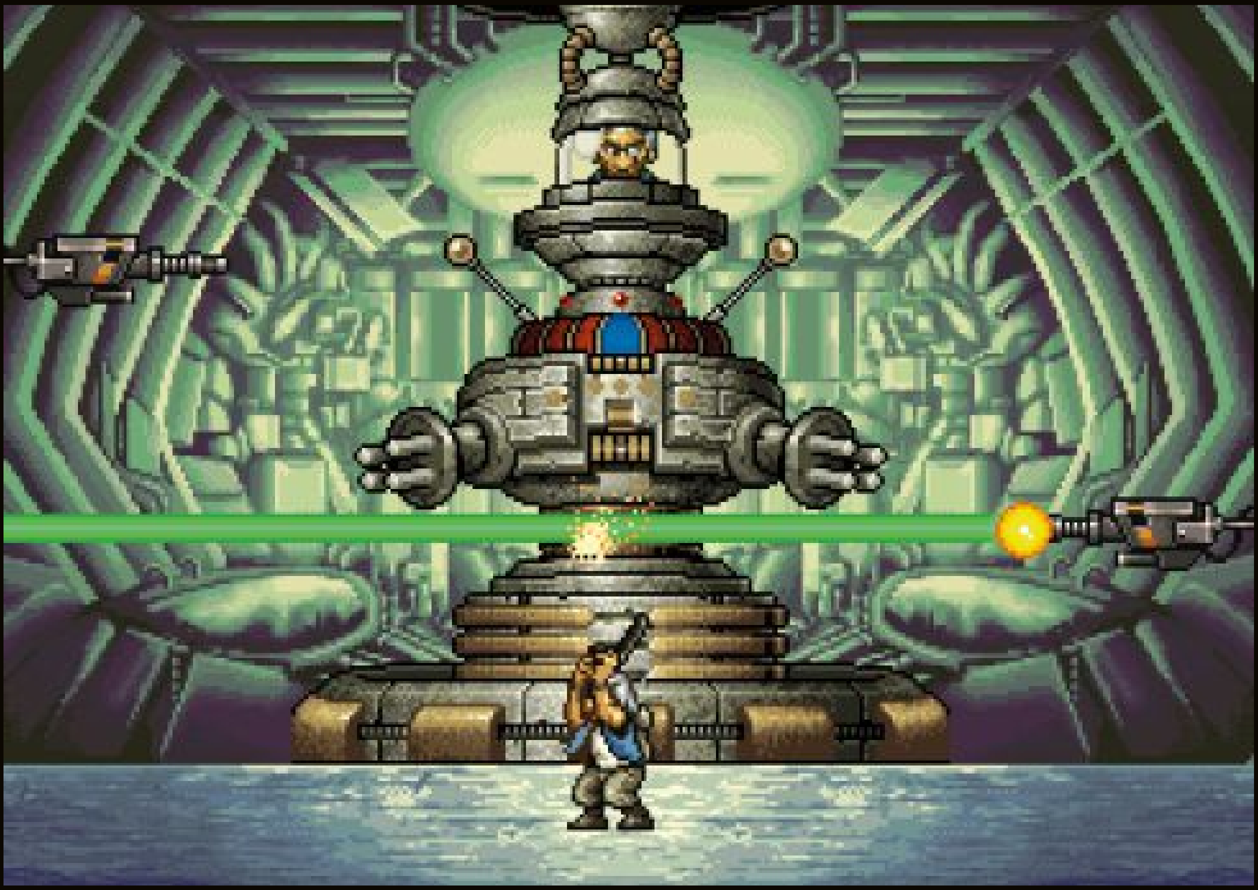
In a scene reminiscent of *Mission: Impossible*, you're slowly lowered down a disused elevator shaft, where you come face-to-face with enemies on either side.



These robotised versions of Donald Morden appear towards the end of *Metal Slug 4*. When killed, their heads fly off and explode, very much like a grenade. After this, the rest of their bodies explode!

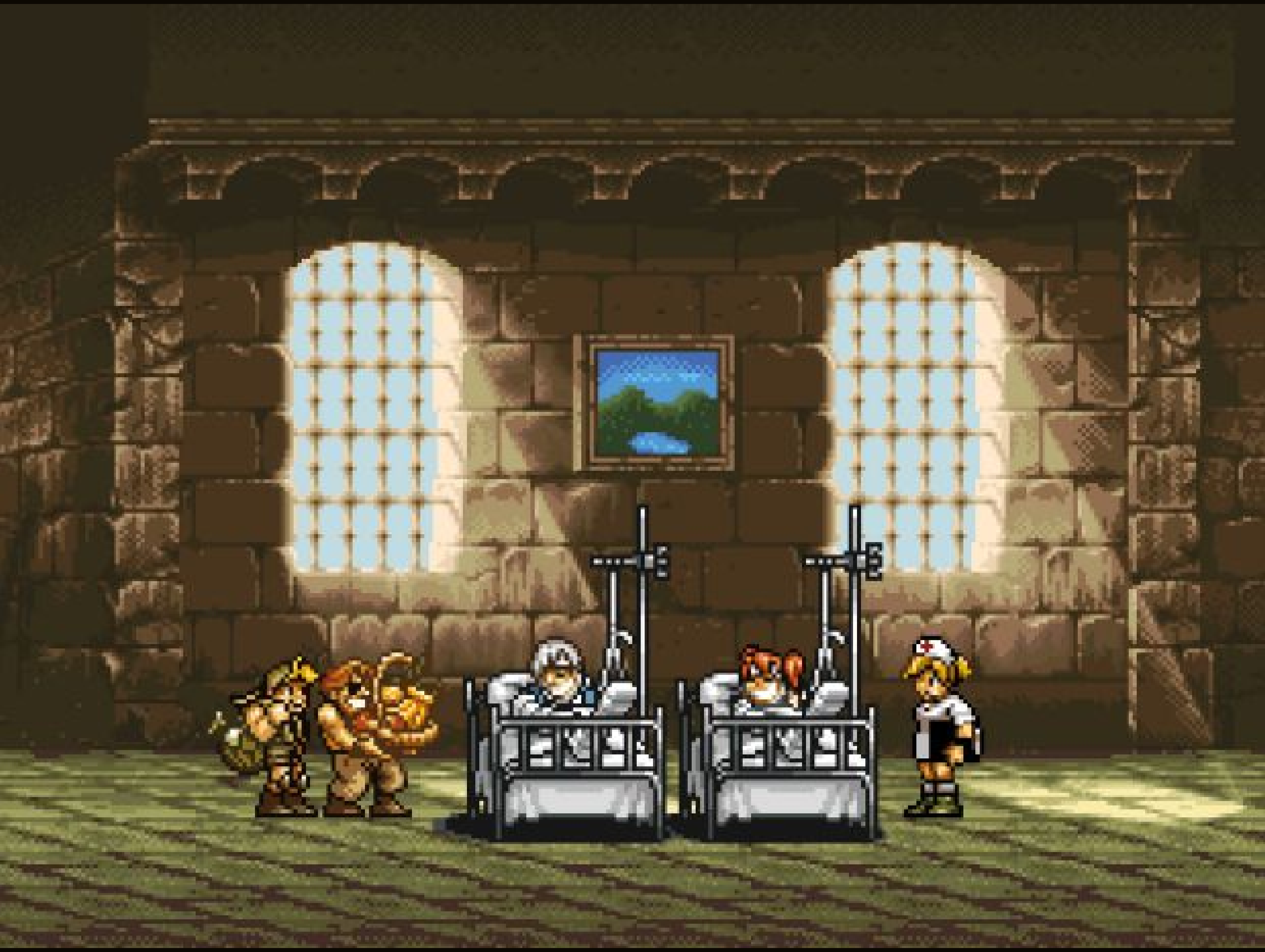


After being defeated at the end of Mission 2, Allen O'Neil is back again, this time as 'Mecha Allen'. This bloodthirsty cyborg fights in the same manner as before, but is upgraded to a true 'end-of-level' boss for the first time.

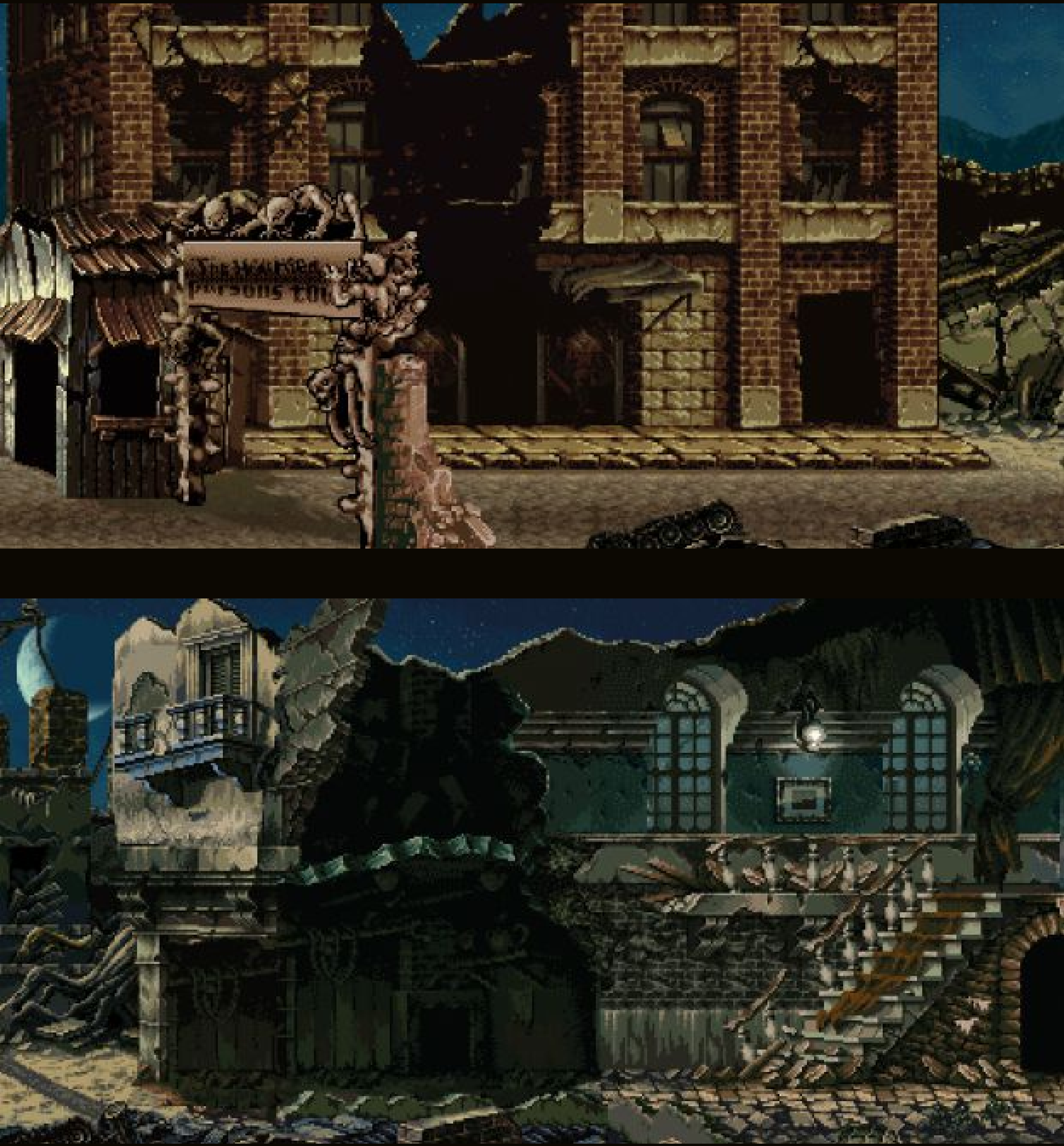


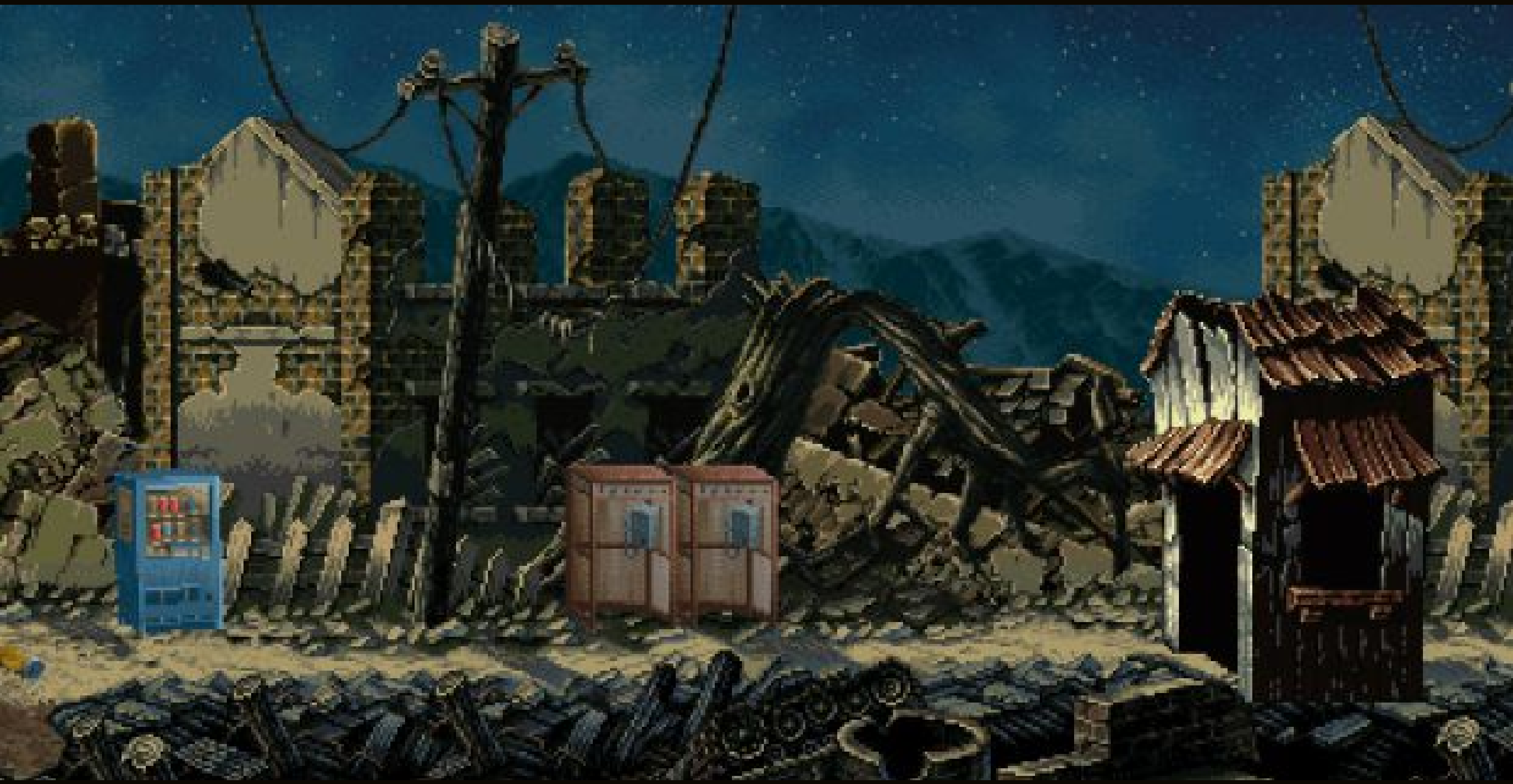
The final boss in *Metal Slug 4* is the Amadeus Mother Computer, controlled by main antagonist, Manfred Amadeus. Once you defeat the two terminals, you must destroy the central computer to emerge victorious.

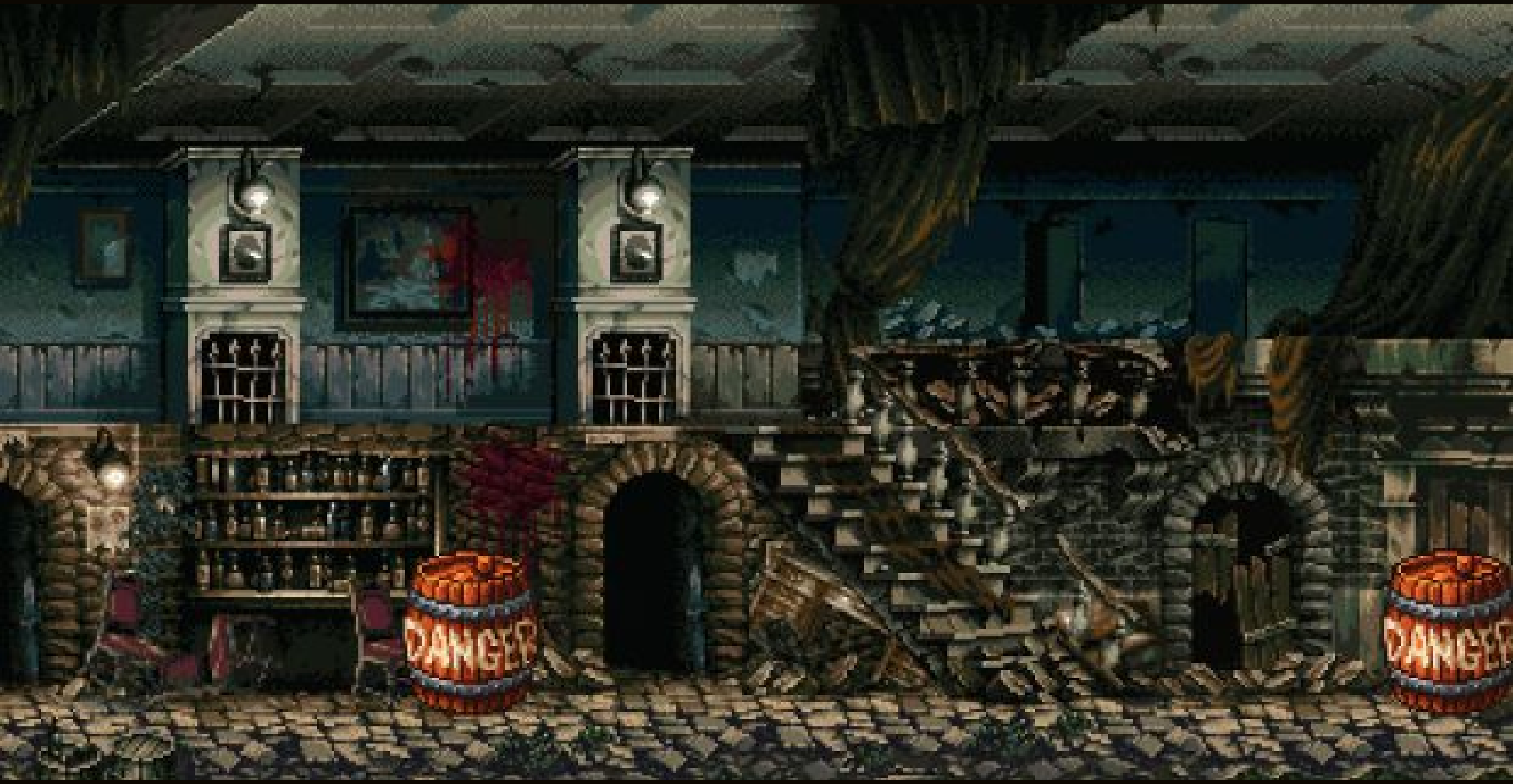
Failing to escape at the end of *Metal Slug 4* sees your character wind up in a hospital bed, with your colleagues bringing you fruit. A successful escape, on the other hand, rewards you with a massive celebratory feast with your friends.



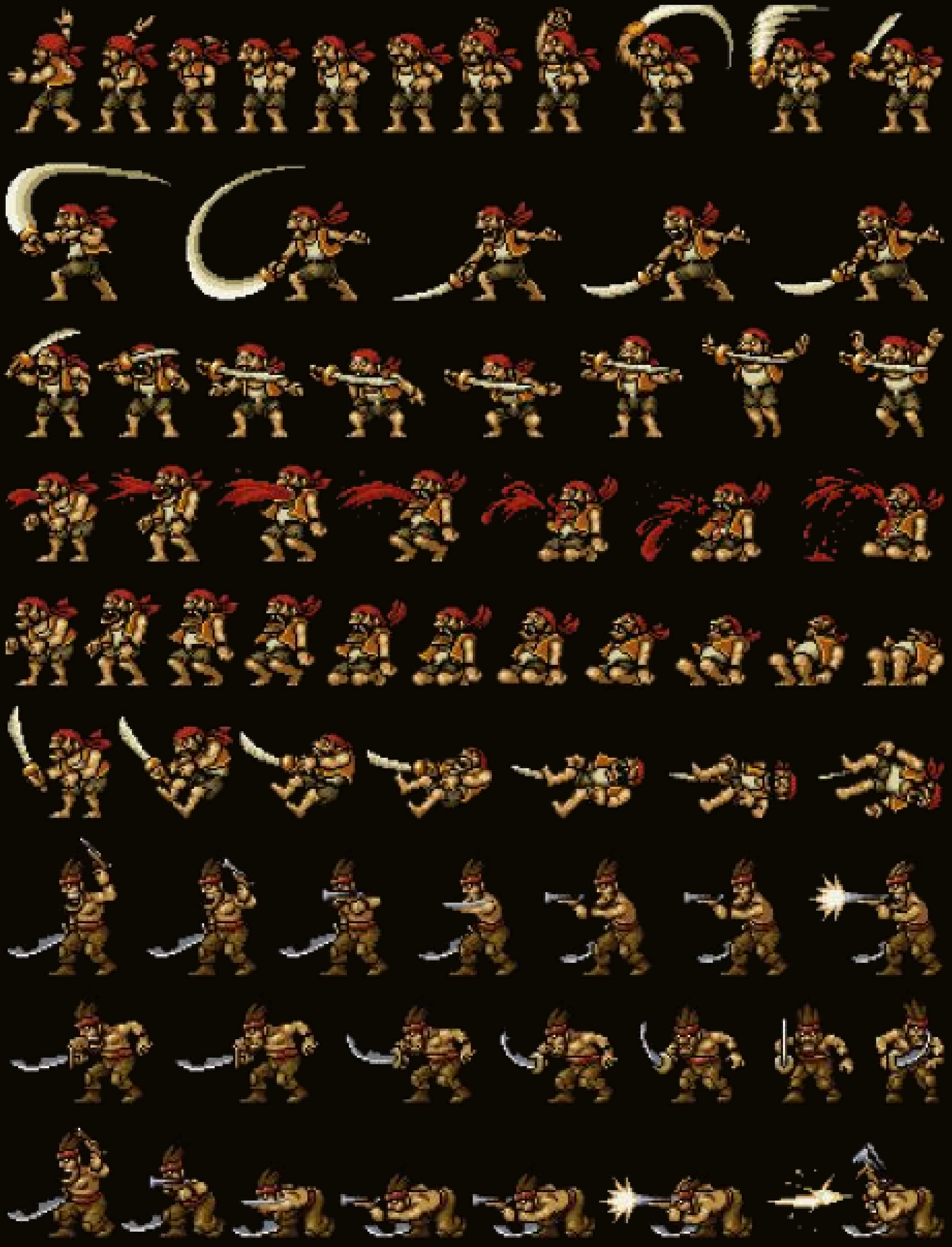
Mission 4 in *Metal Slug 4* offers a branching route, with the path going via a war-torn city environment or an underground tomb infested with mummies. Whichever way you choose, both lead to an end-of-level battle with the huge robot, Big John.



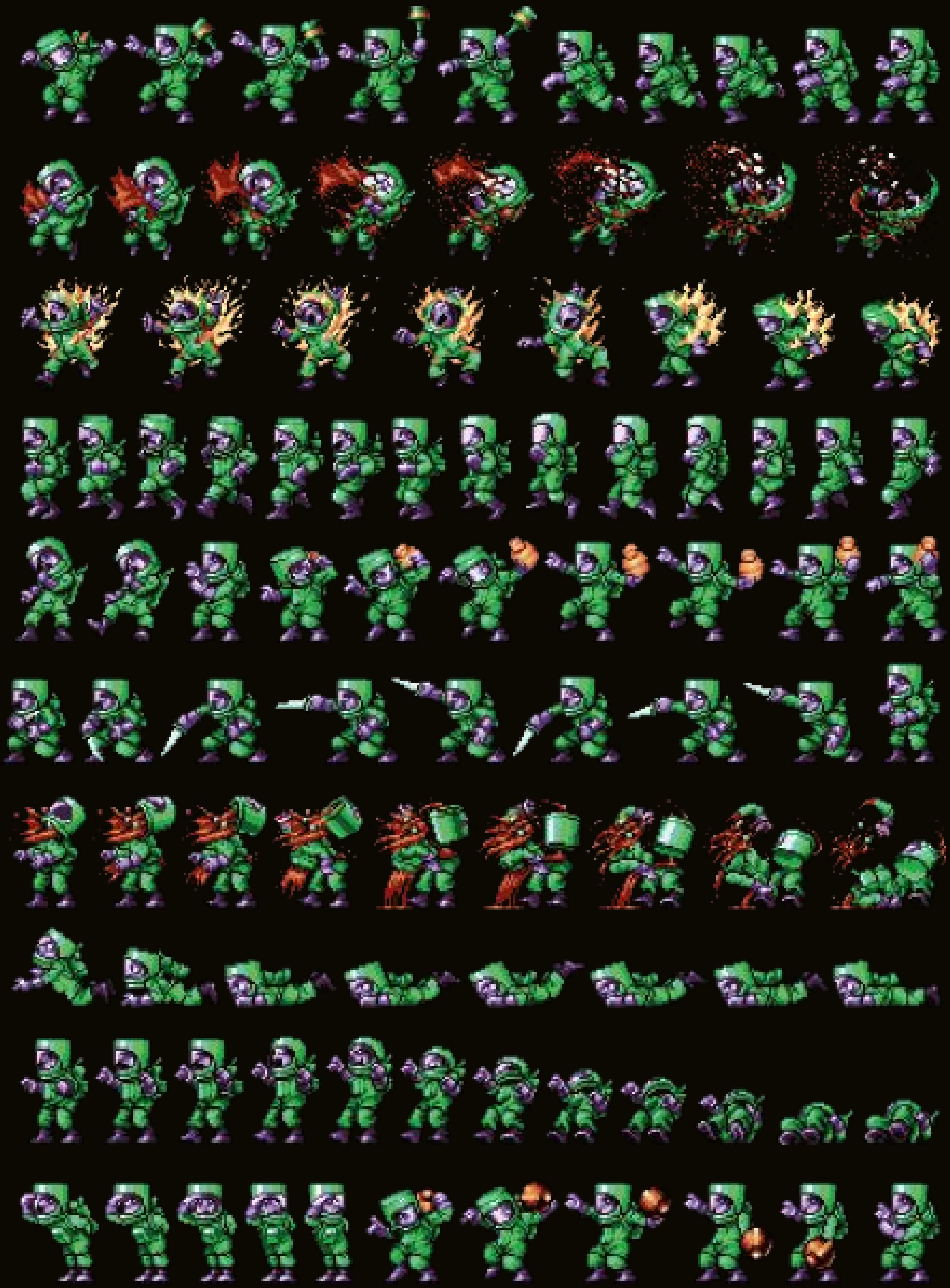



DANGER
DANGER

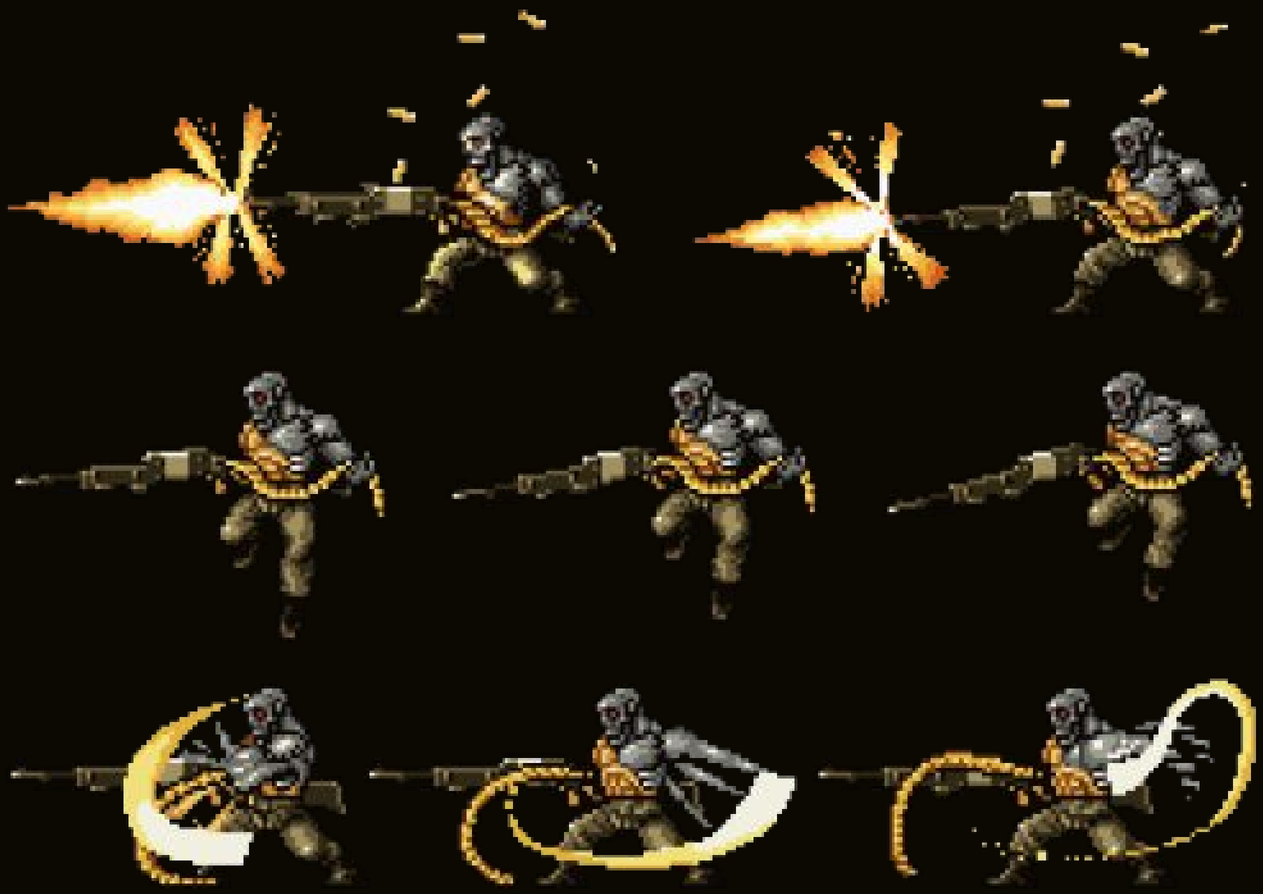
As with many of the sprites in *Metal Slug 4*, the Pirates are all modified versions of the Arabian Infantry, first seen in *Metal Slug 2*.

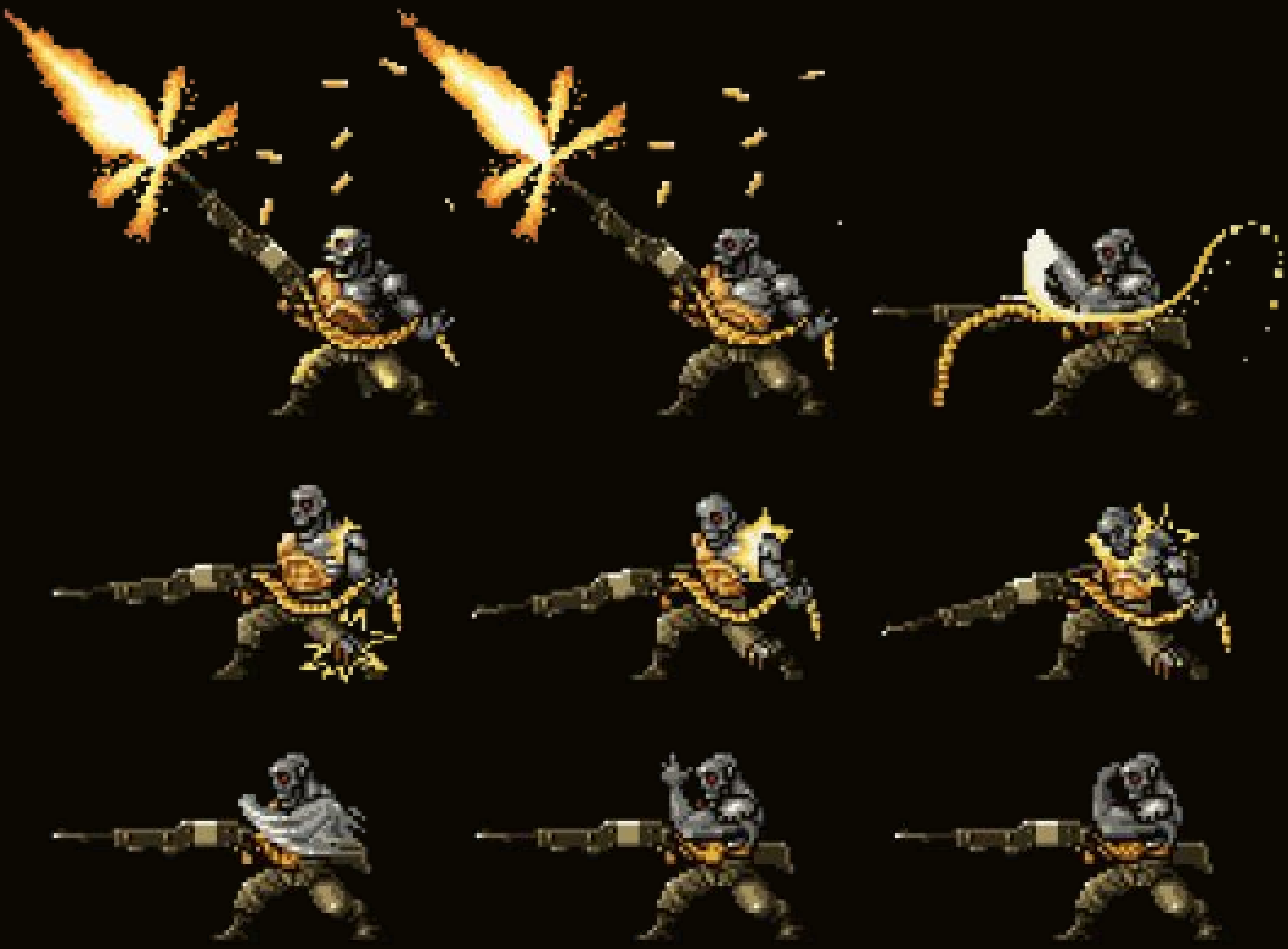


The Hazmat Soldiers' protective suits immunise them from zombie and mummy infections. The green Hazmat Soldiers throw the mummy infection gas as their main attack. while the orange Hazmat Soldiers throw explosive balls containing the zombie virus.

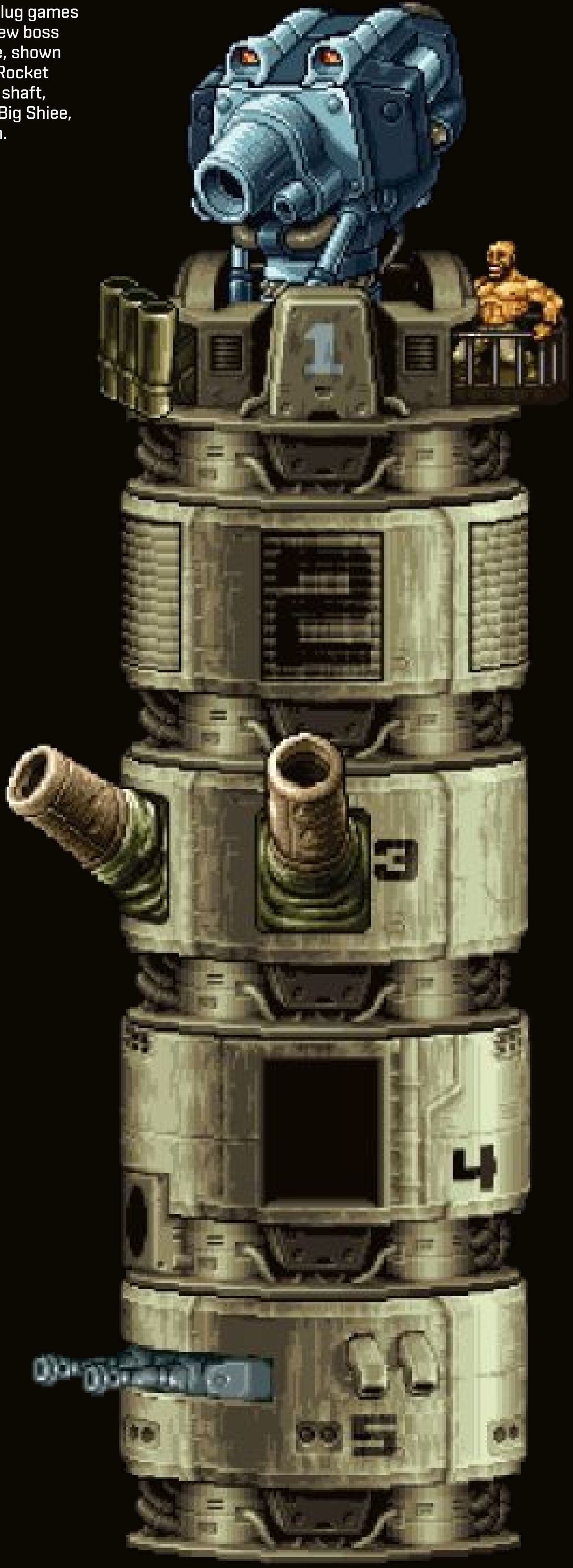


Very much inspired by *The Terminator*, Mecha Allen is a cyborg version of the infamous Allen O'Neil. Multiple hits remove his flesh to reveal a metallic body underneath. O'Neil is the only character in the entire Metal Slug series to have spoken dialogue, such as: 'You're mincemeat!'

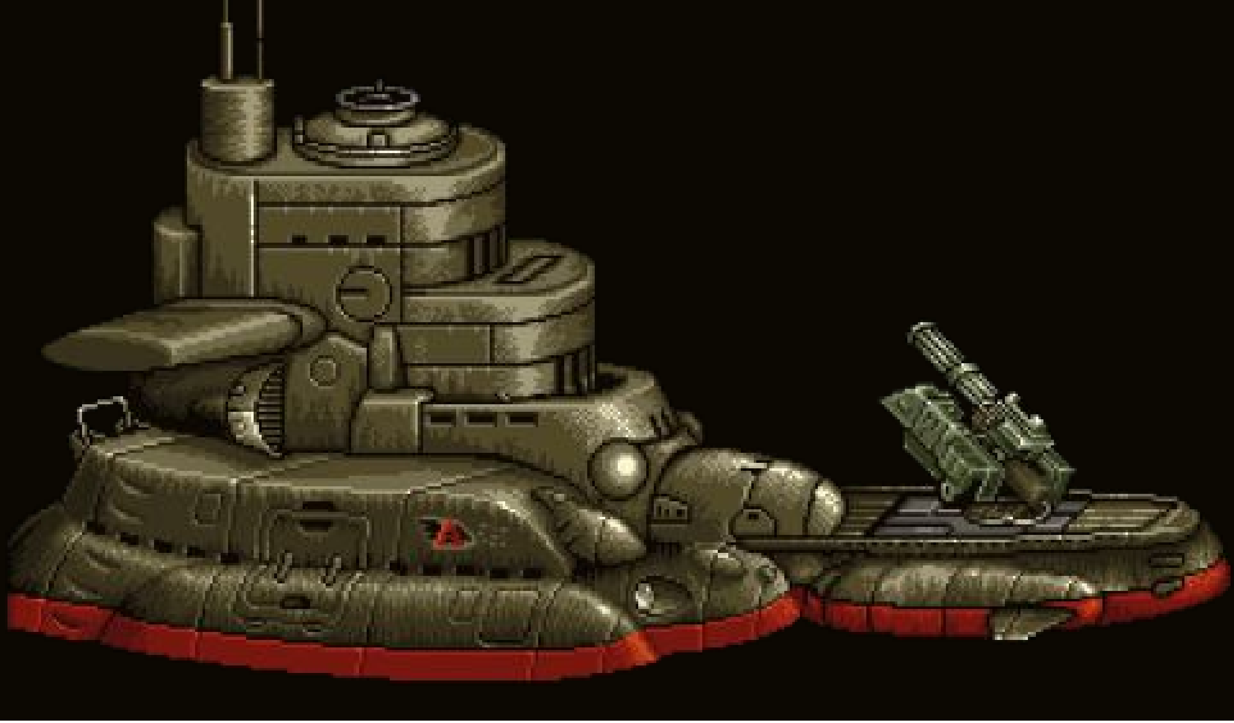




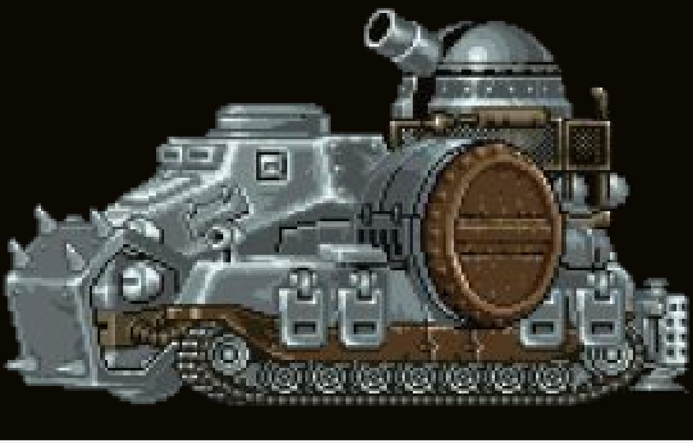
Metal Slug 4 infamously reuses old sprites from previous Metal Slug games and reassembles them into new boss designs. The Toschka Dalanue, shown below, uses the Rebel Space Rocket from *Metal Slug 3* as its main shaft, with cannons and guns from Big Shiee, Huge Hermit and Shoe & Karn.



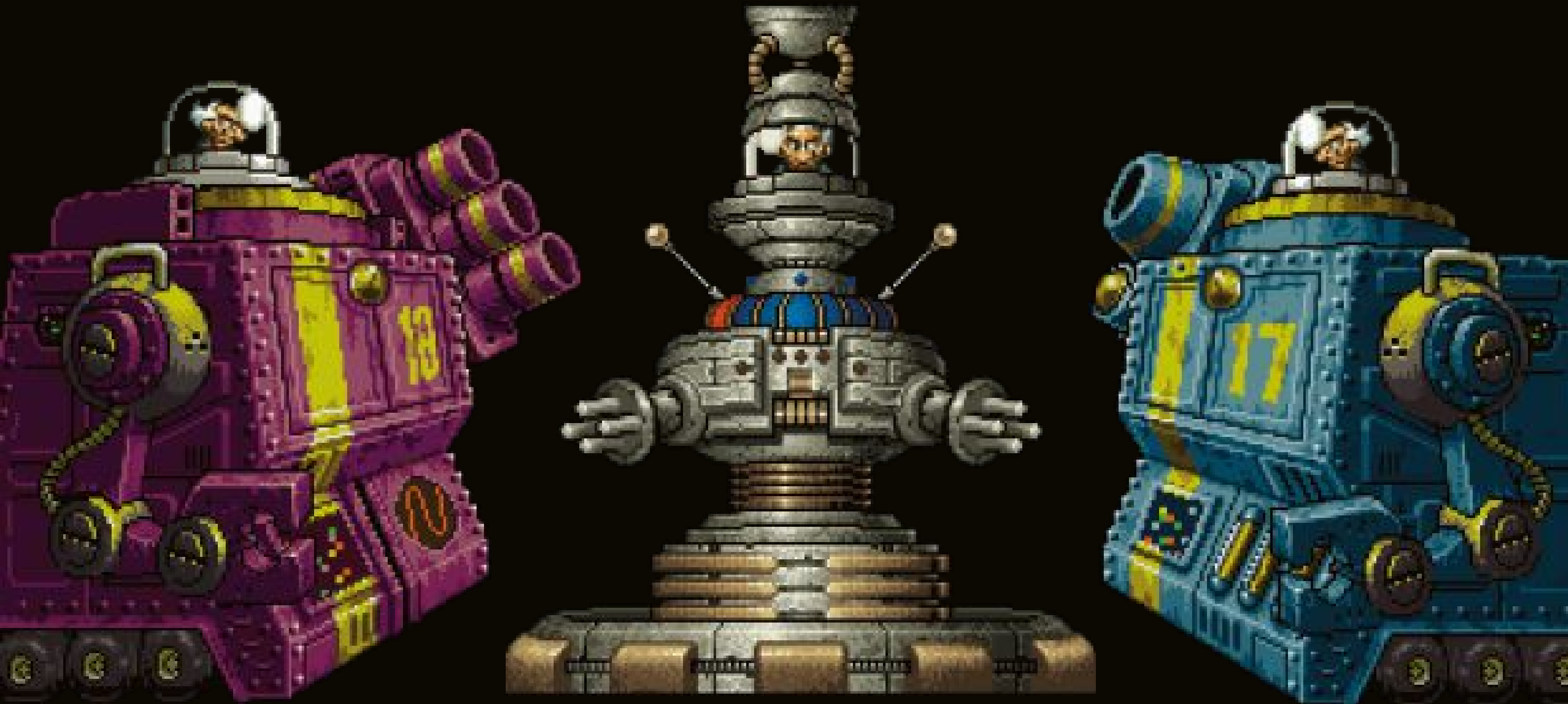
Toschka Dalanue (Mission 2 boss)



Sea Satan (Mission 5 boss)



The Iron (Mission 3 boss)



Amadeus (Final Mission boss)

First released: 2003 / Players: 2 / Developed by: Noise Factory and SNK / Published by: SNK

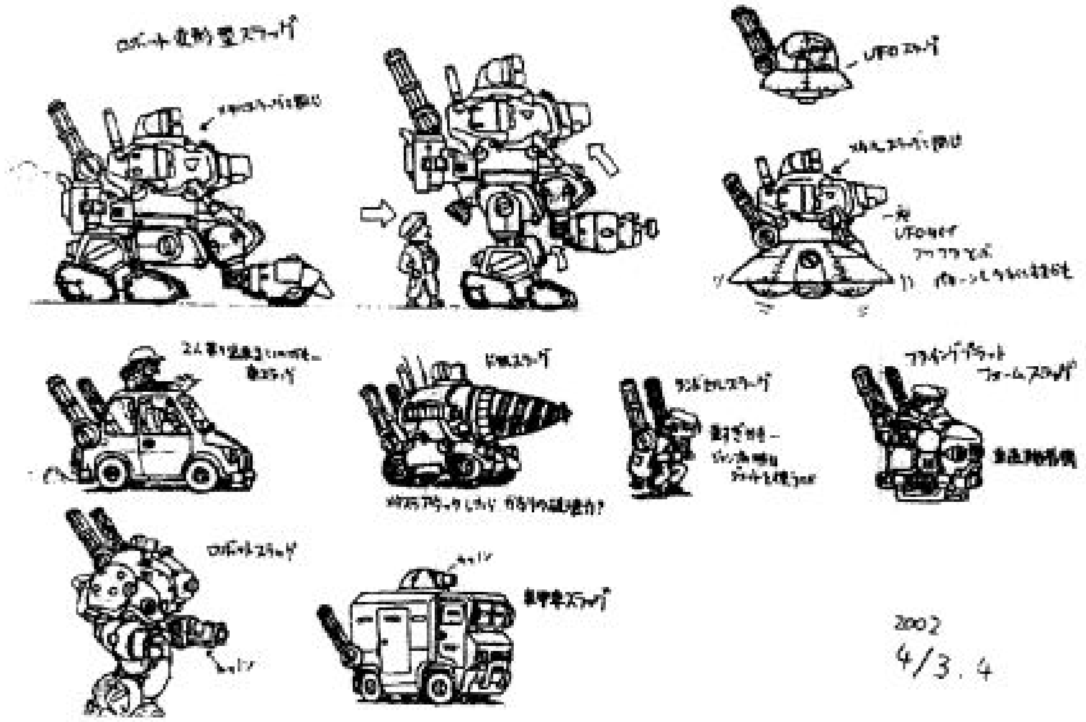
METAL SLUG
5

ARC NG SWITCH PS2 PS3

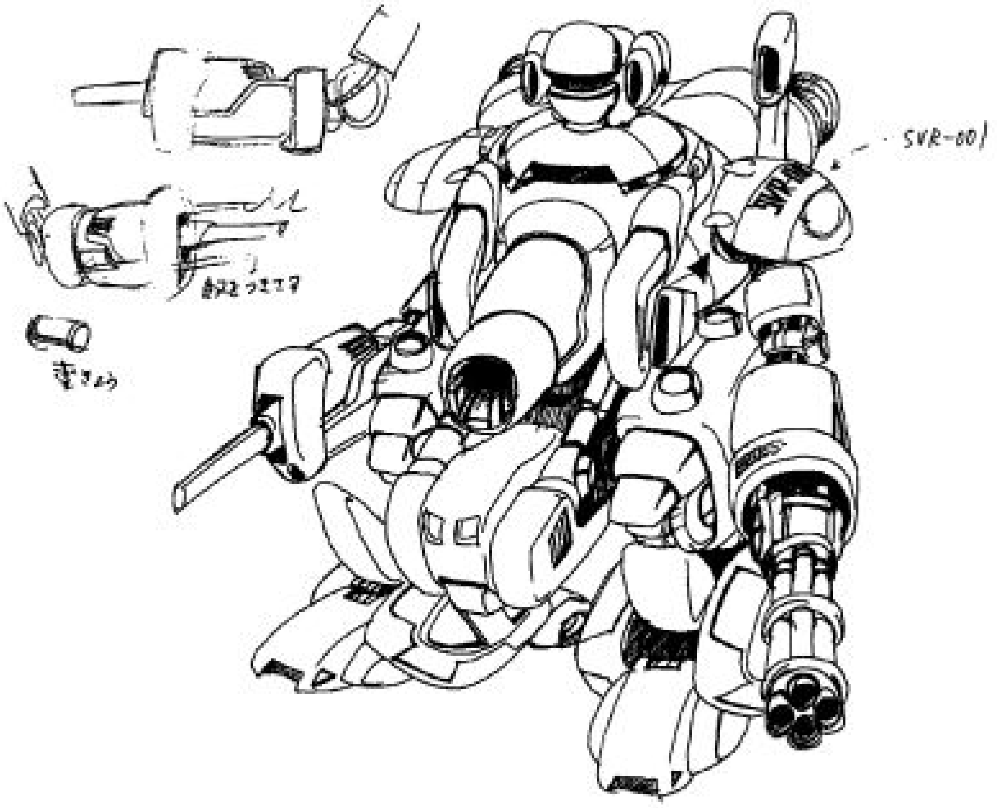
PS4 PC XBOX ONE

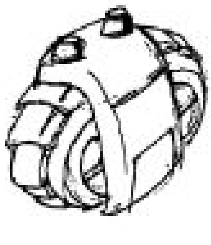
After the collapse of SNK, founder Eikichi Kawasaki established Playmore, and would soon begin buying up the properties of his former company, rebranding as SNK Playmore in 2003. *Metal Slug 5* still featured the involvement of Noise Factory, but was developed in-house by SNK Playmore, and was a more robust sequel than its predecessor. An all-new ‘slide’ move was introduced, and a lot more new visual content was present – a refreshing change after the rampant recycling seen in *Metal Slug 4*. However, there was only a single transformation – ‘obese’ mode – and the number of branching pathways was reduced. Newcomers Trevor and Nadia were also nowhere to be seen, with Tarma and Eri being restored to their usual roles as playable heroes.

Dated a year and a half before the release of *Metal Slug 5*, these concept sketches show some interesting initial ideas, such as UFO Slug. From this set, the Slug Mobile (based on a VW Beetle and Fiat 500 cars) would go on to become a new vehicle in the final game.

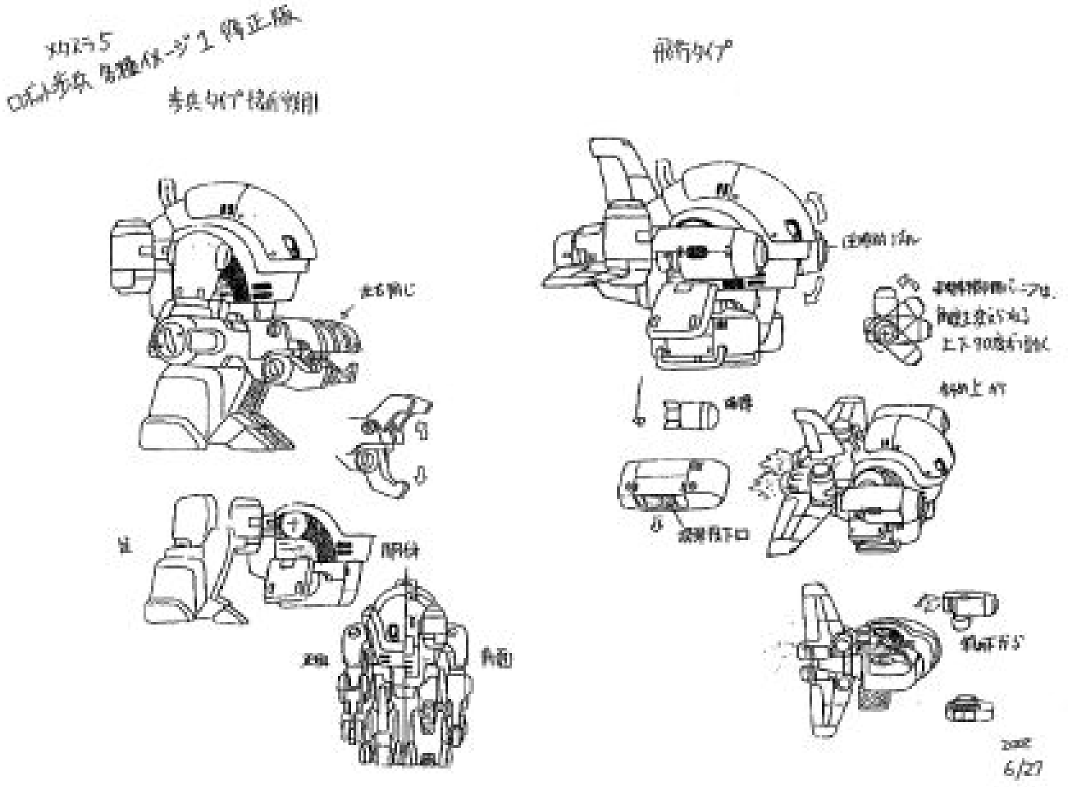

ロボット変形型スラッグ
UFOスラッグ
ドリルスラッグ
ランドセルスラッグ
フライングプラットフォームスラッグ
ロボットスラッグ
装甲車スラッグ
2002
4/3.4

The Slug Gunner fuses elements from the SV-001 and LV Armour and can switch between being a mech and tank. It comes armed with a handy Gatling gun, but is rather cumbersome to control.

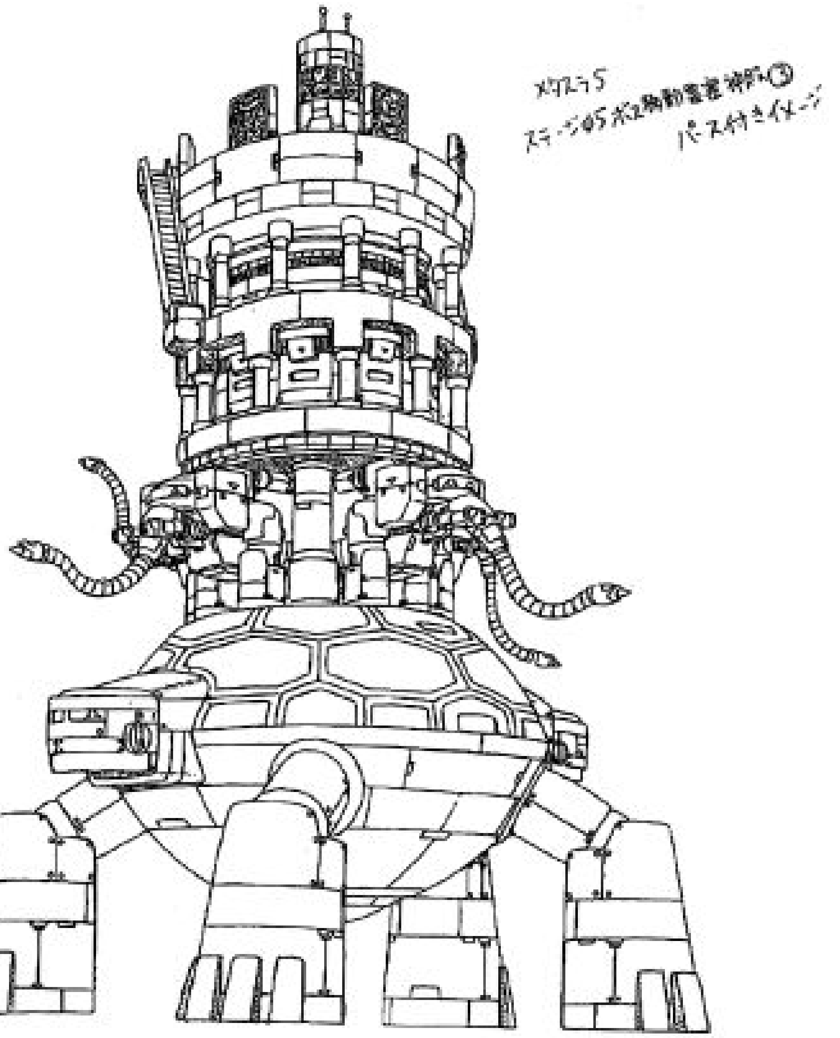




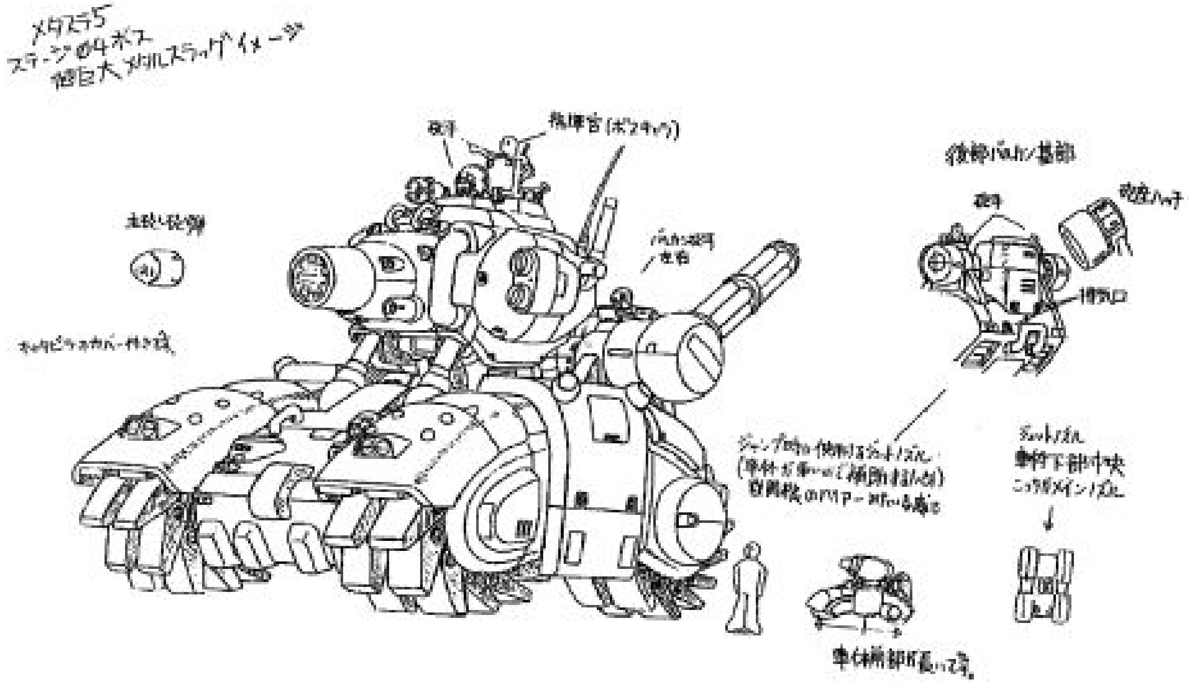
Concept sketches for the design of 'units' in *Metal Slug 5*, of which different variants appear. The image below shows one transforming into a flying machine, which does not appear in the final game.


メタスラ5
ロボット歩兵 各種イメージ1 修正版
歩兵タイプ
飛行タイプ
2005
6/27

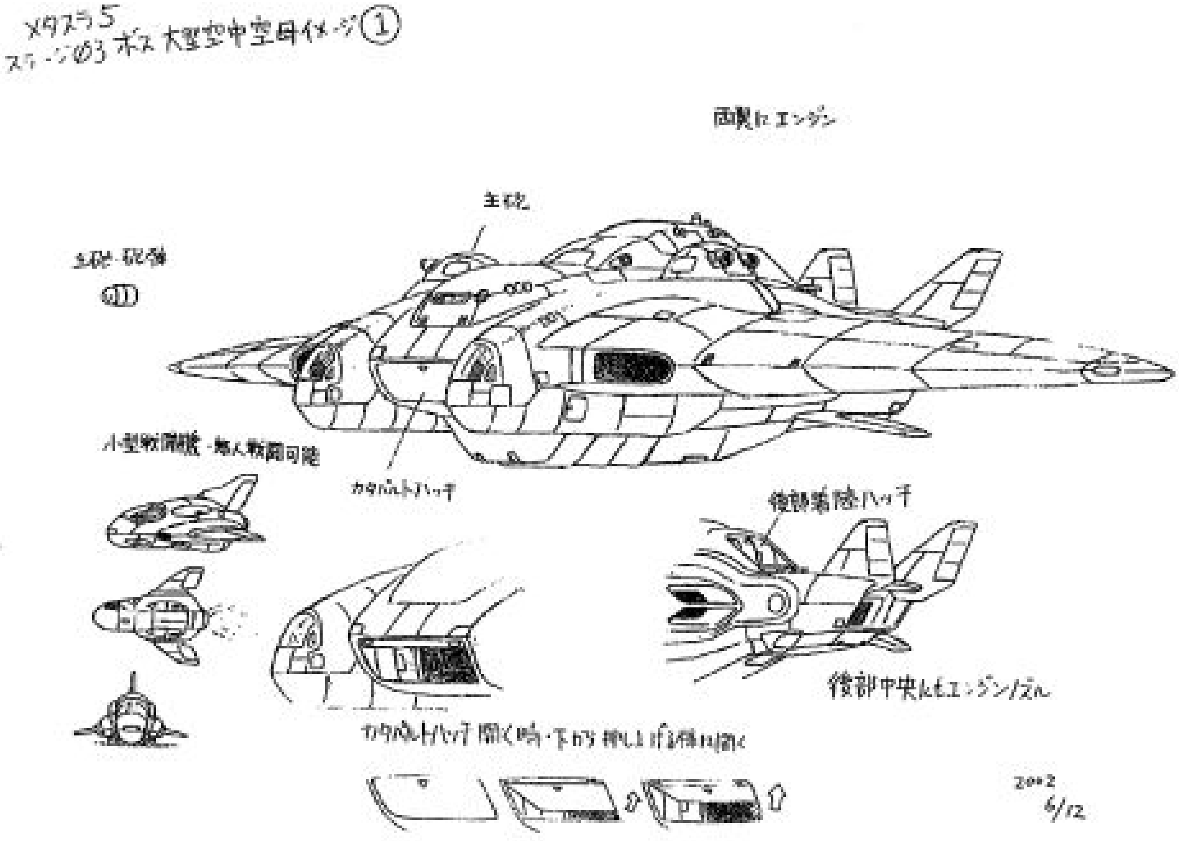
A mid-boss in the Final Mission of *Metal Slug 5*, the Mammoth Tower was originally placed on the shell of a giant stone turtle. The turtle element was removed from the final game, but it did make an appearance in later games, as a playable unit in *Metal Slug Defense* and *Metal Slug Attack*.


メタスラ5
ステージ05ボス移動要塞 ③
パース付きイメージ

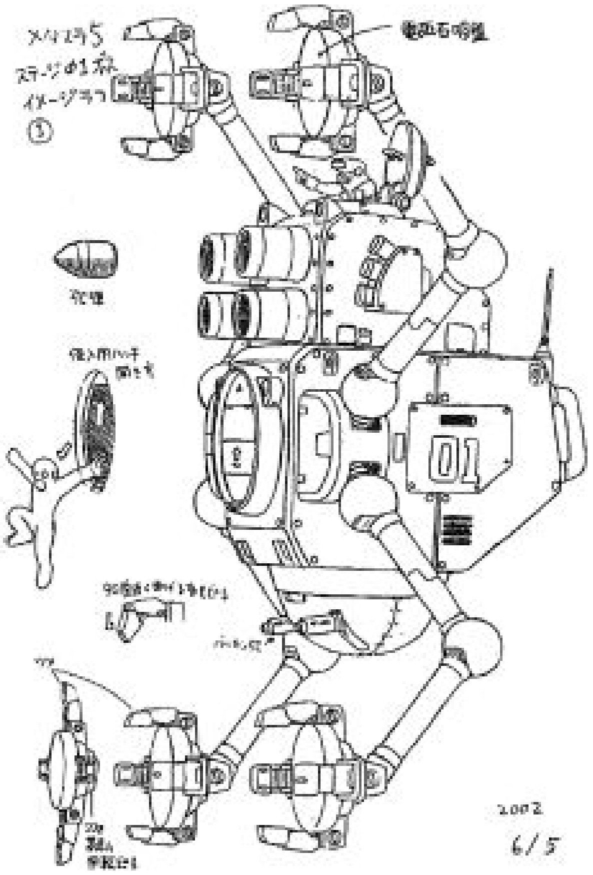
The boss designs for *Metal Slug 5* are interesting as they appear to include a few elements that didn't make it into the game – such as the mini fighter planes emerging from the front of the Mission 2 boss.


メタスラ5
ステージ04ボス
超巨大メタルスラッグイメージ
砲手
指揮官(ボスキャラ)
主砲・砲弾
バルカン砲 左右
コックピットはカバー付き
後部バルカン基部
砲手
砲座ハッチ
排気口
ジャンプ時に使用するジェットノズル
(車体が重いので補助程度)
ジェットノズル
車体下部中央
ここがメインノズル
車体前部が開いて

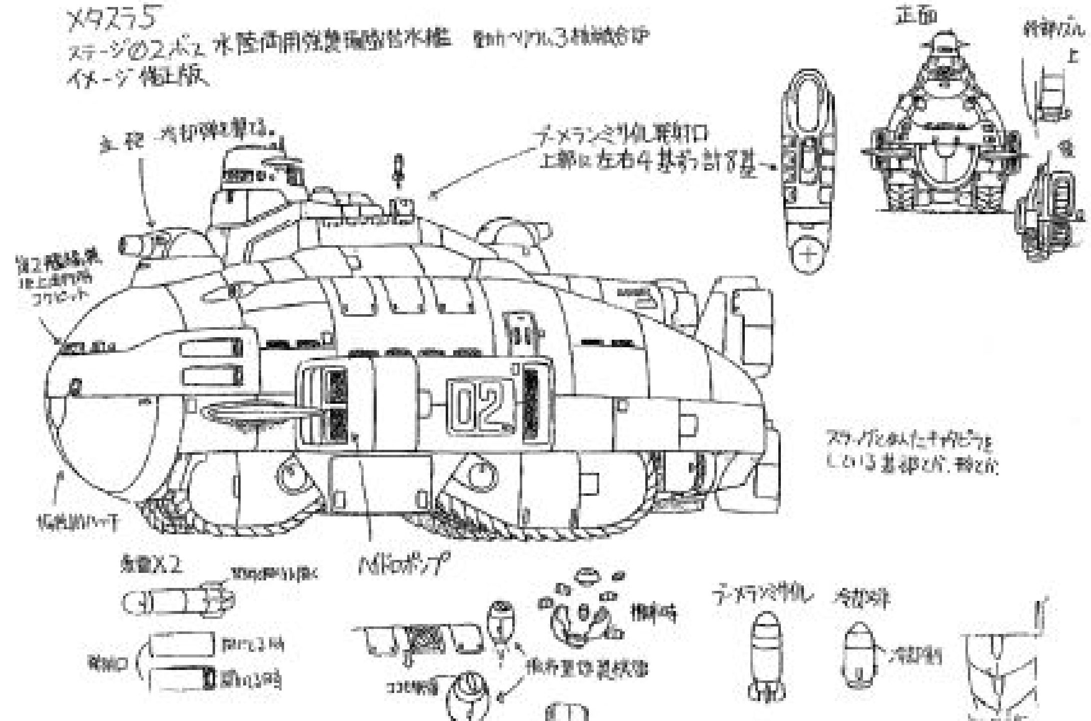
Metal Rear (Mission 1 boss)


メタスラ5
ステージ03ボス 大型空中空母イメージ①
両翼にエンジン
主砲
主砲・砲弾
小型戦闘機・無人戦闘可能
カタパルトハッチ
後部着陸ハッチ
後部中央にもエンジンノズル
カタパルトハッチ開く時・下から押し上げ斜めに開く
2002
6/12

F-502 Shooting Ray (Mission 2 boss)

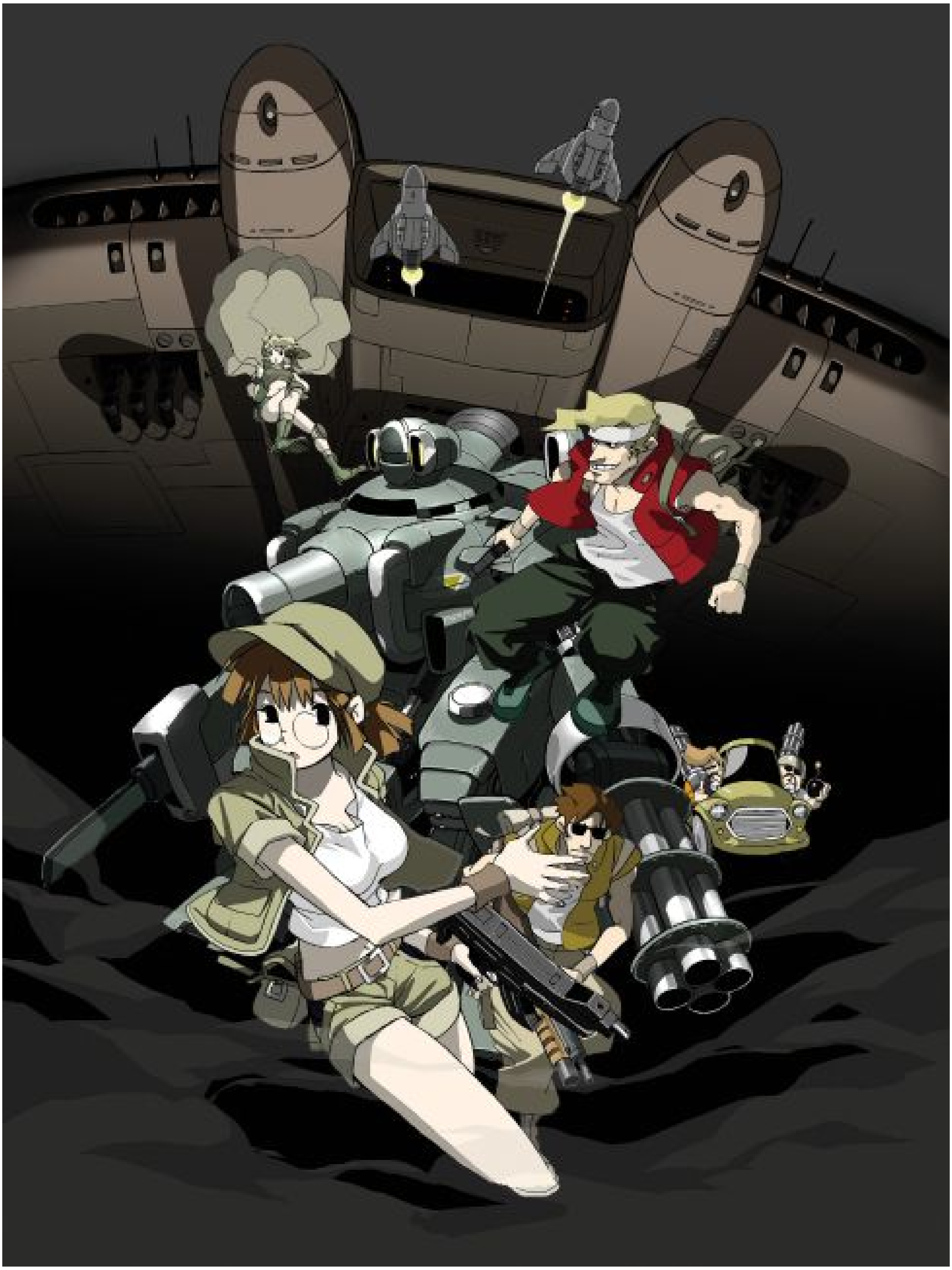

メタスラ5
ステージ01ボス
イメージラフ
①
01
2002
6/5

Wall Crawler (Mission 3 boss)

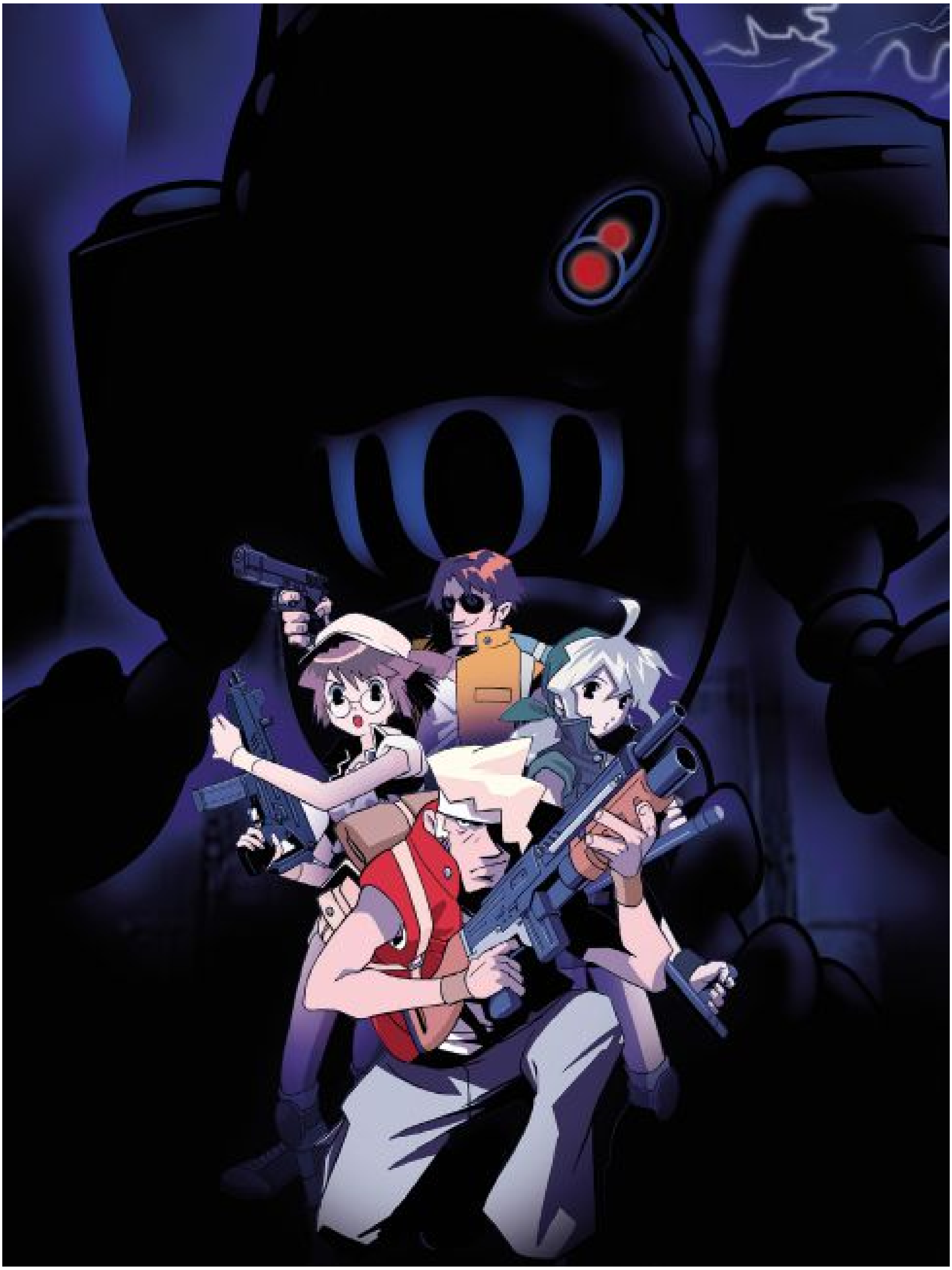

メタスラ5
ステージ02ボス 水陸両用強襲揚陸潜水艦
イメージ修正版
正面
ブーメランミサイル発射口
上部に左右4基ずつ計8基
02
ハイドロポンプ
ブーメランミサイル
キャタピラ
2002
6/7

Sand Marine (Mission 4 boss)

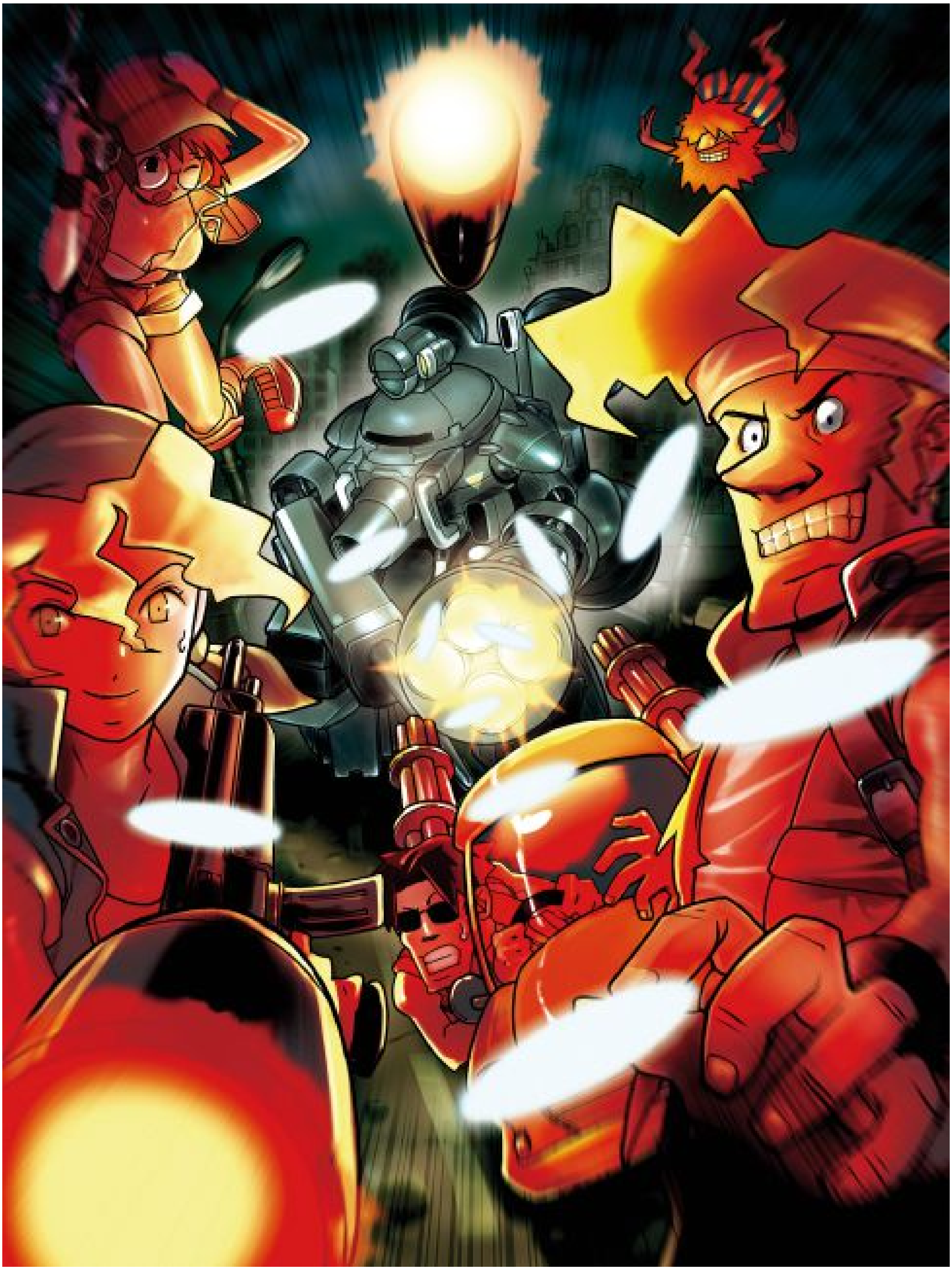
This cover art for *Metal Slug 5* by TONKO is notable for being the first cover since the original *Metal Slug* to not feature the legendary SV-001, instead replacing it with the Slug Gunner.



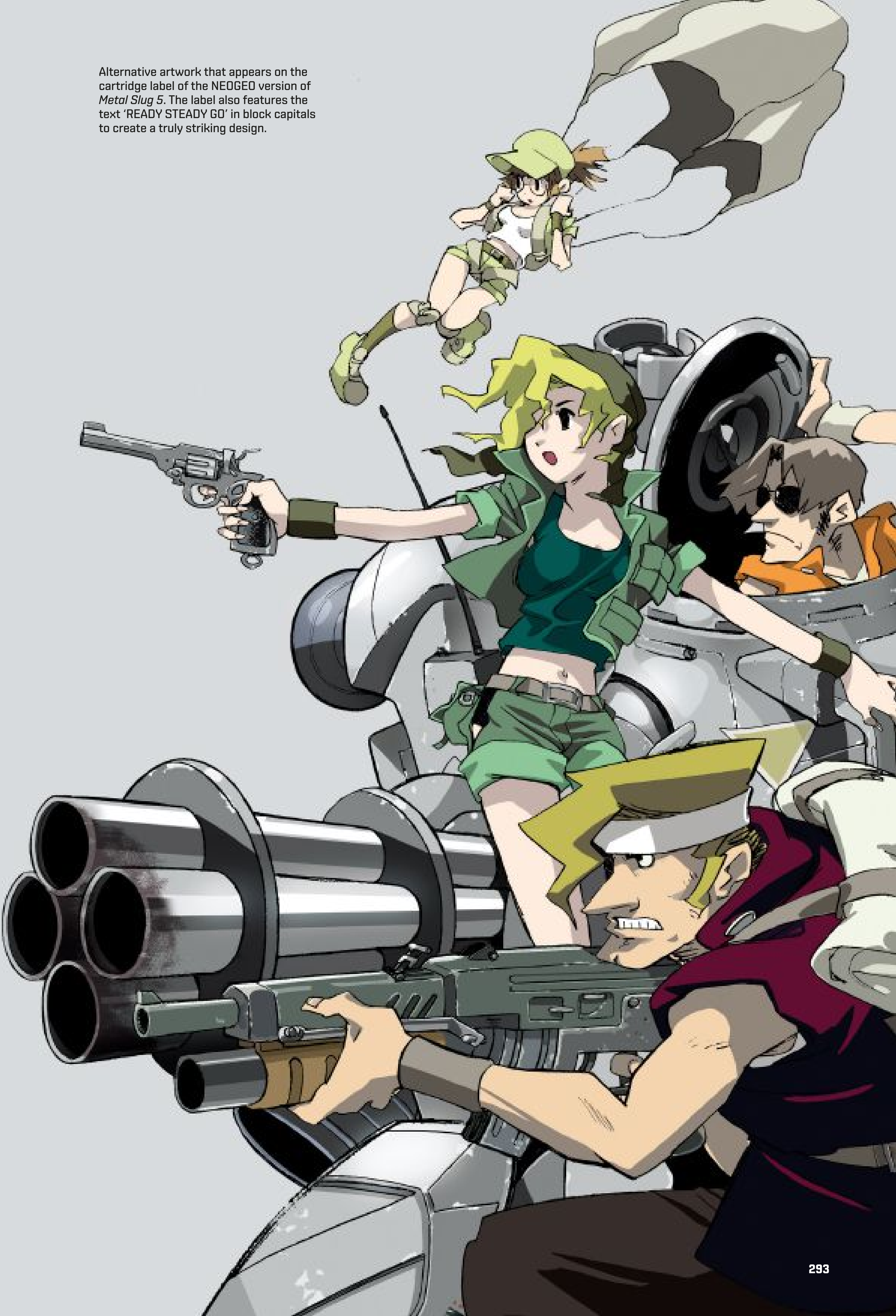
Magazine advertisement art for *Metal Slug 5* by TONKO. This time, the four main protagonists are armed and ready for action, standing in front of the final boss – the Evil Spirit Incarnate.

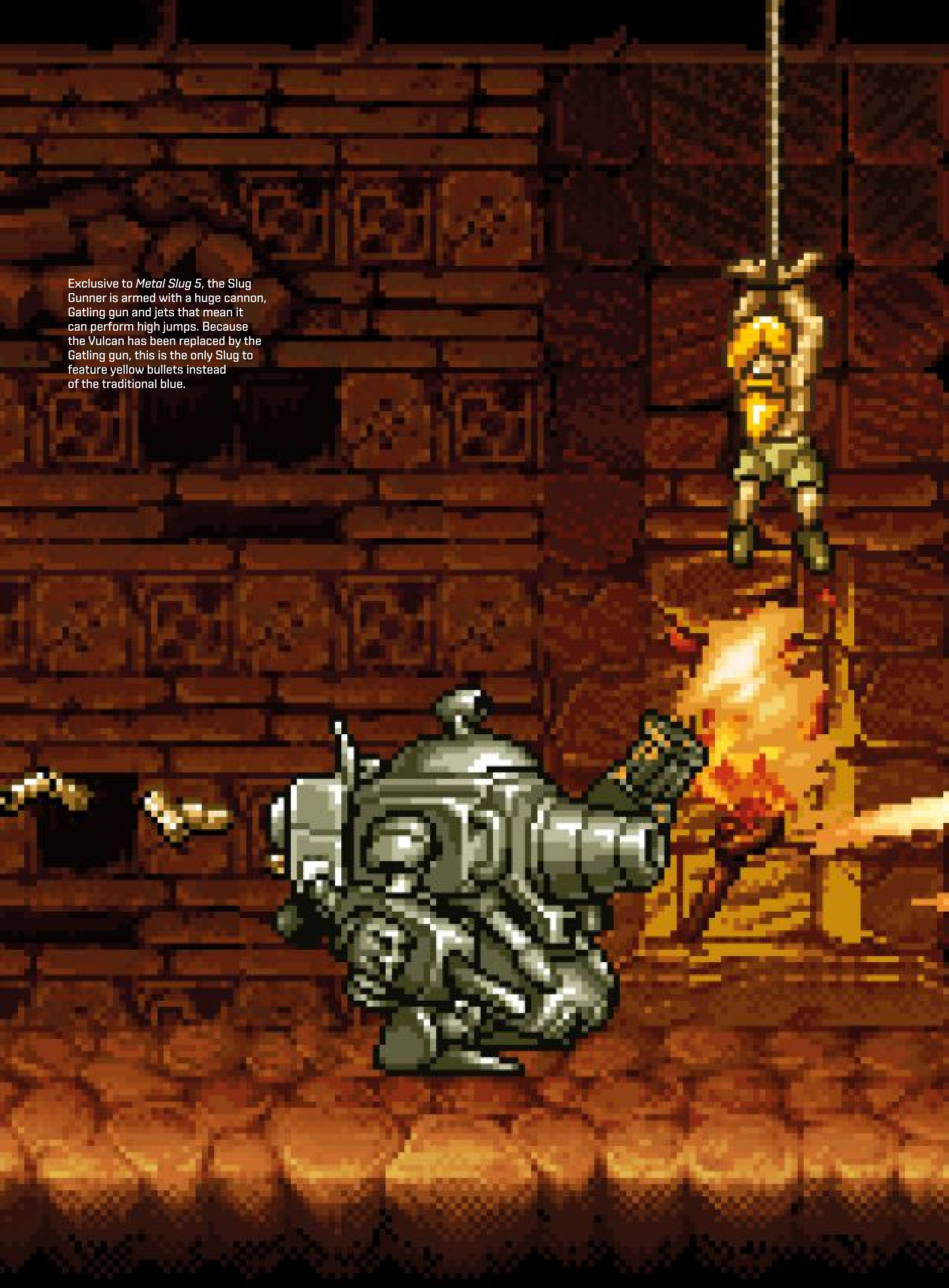


The Japanese Sony PlayStation 2 release of *Metal Slug 5* has a brand-new cover. Again created by TONKO, the main protagonists are more prominent in the foreground. As before, the SV-001 is omitted in favour of the new Slug Gunner.



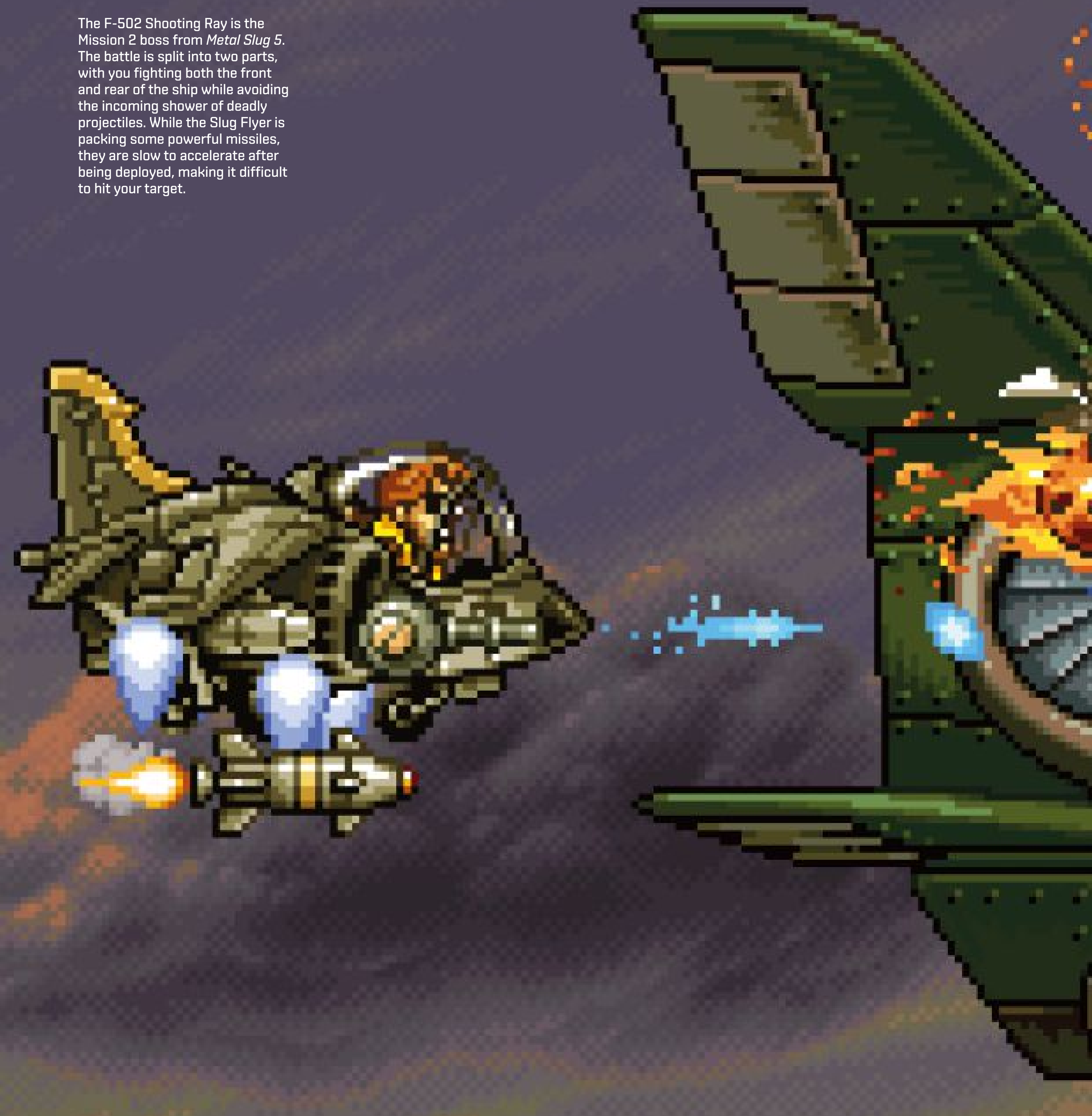
Alternative artwork that appears on the cartridge label of the NEOGEO version of *Metal Slug 5*. The label also features the text 'READY STEADY GO' in block capitals to create a truly striking design.

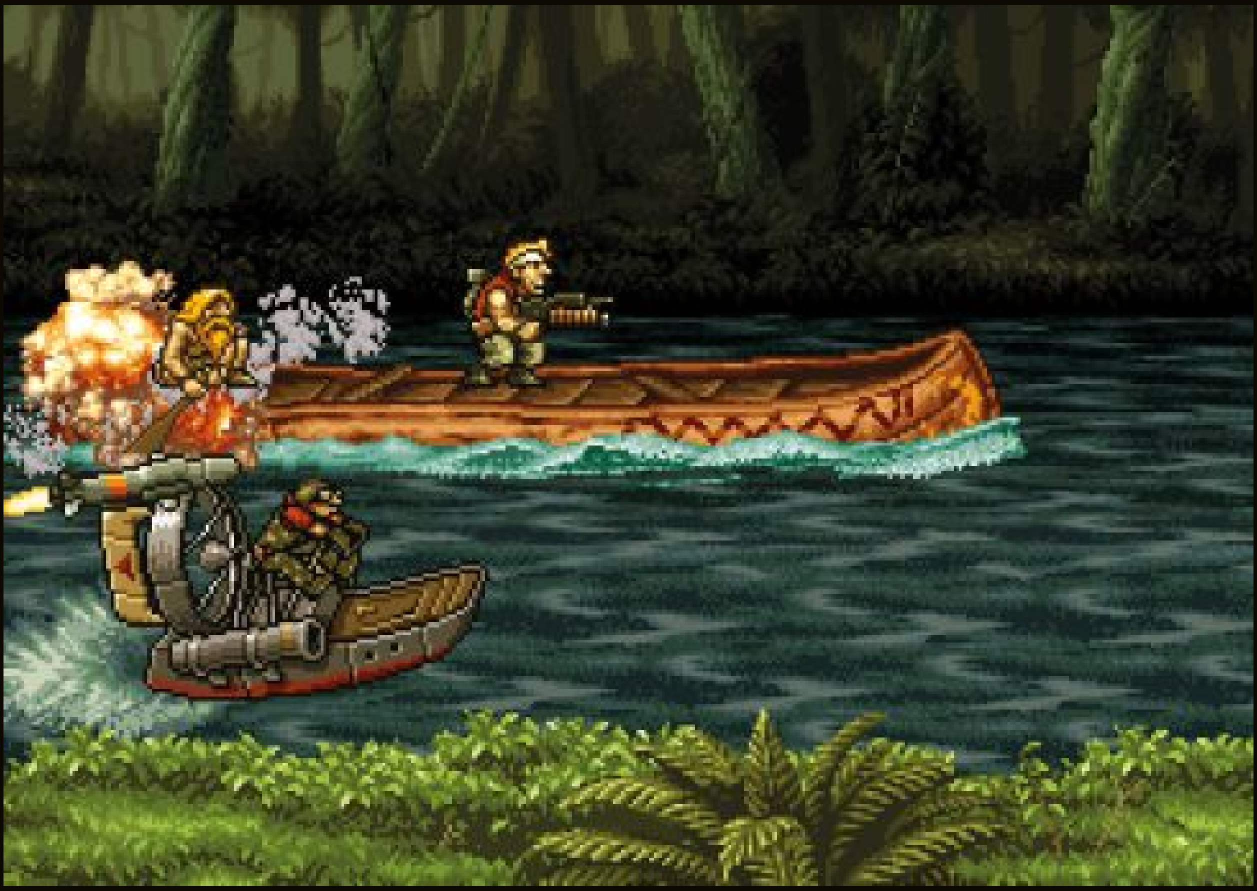




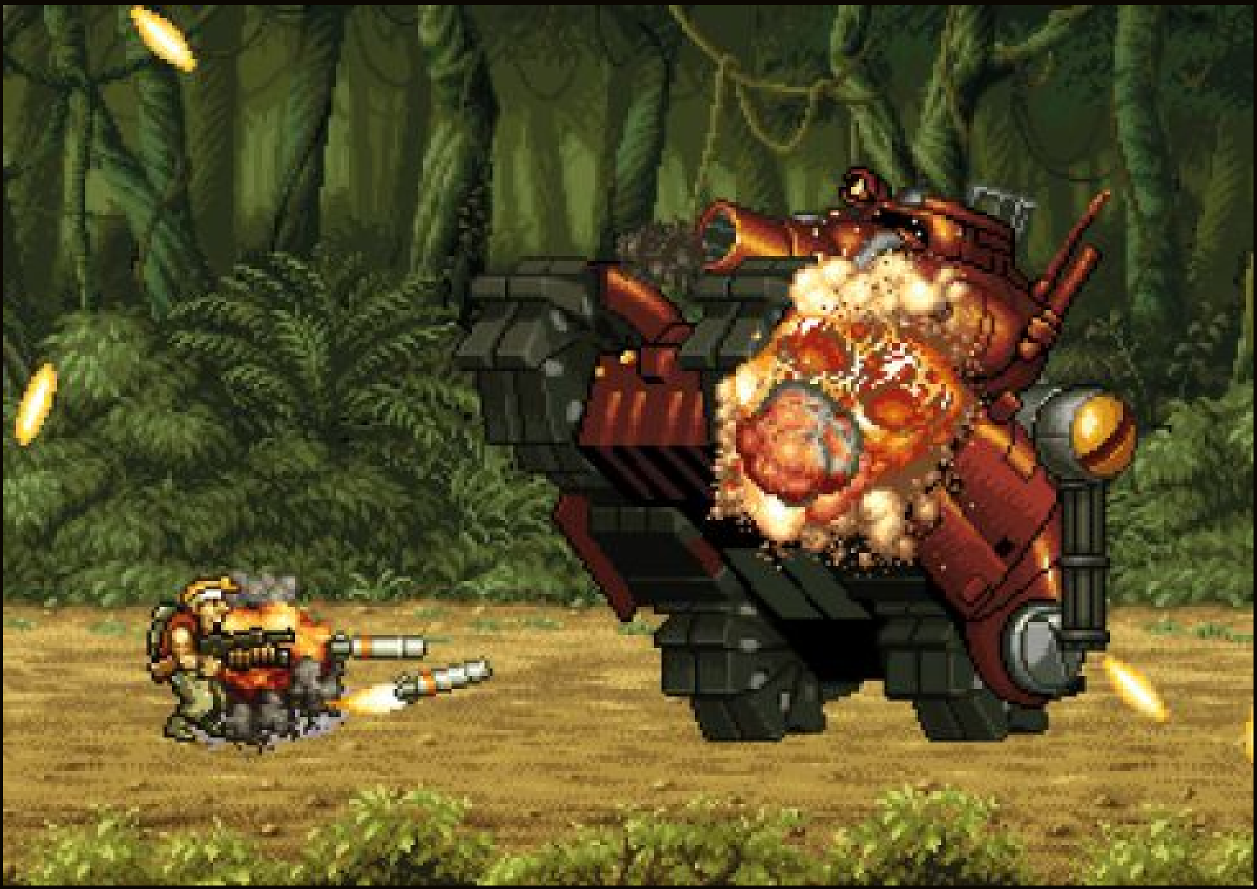
Exclusive to *Metal Slug 5*, the Slug Gunner is armed with a huge cannon, Gatling gun and jets that mean it can perform high jumps. Because the Vulcan has been replaced by the Gatling gun, this is the only Slug to feature yellow bullets instead of the traditional blue.

The F-502 Shooting Ray is the Mission 2 boss from *Metal Slug 5*. The battle is split into two parts, with you fighting both the front and rear of the ship while avoiding the incoming shower of deadly projectiles. While the Slug Flyer is packing some powerful missiles, they are slow to accelerate after being deployed, making it difficult to hit your target.

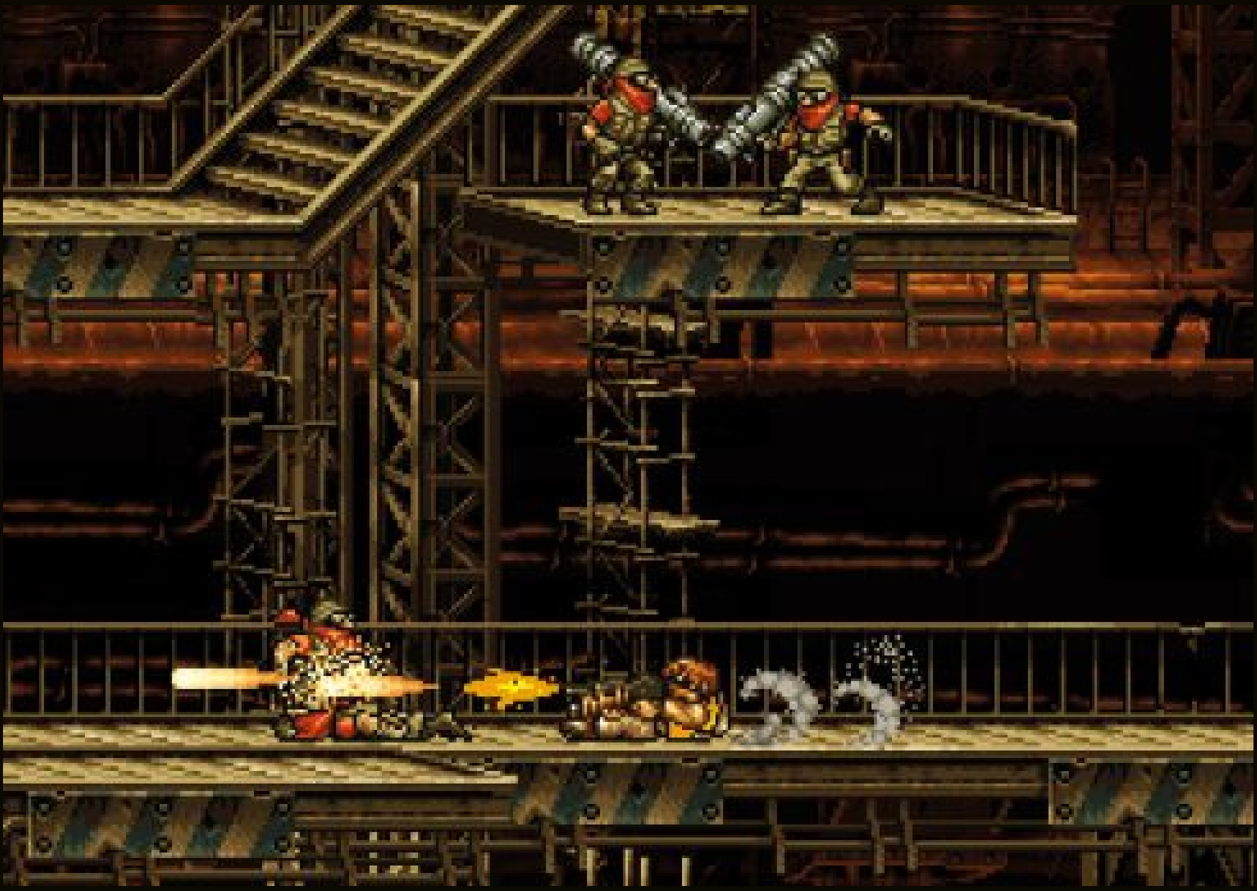




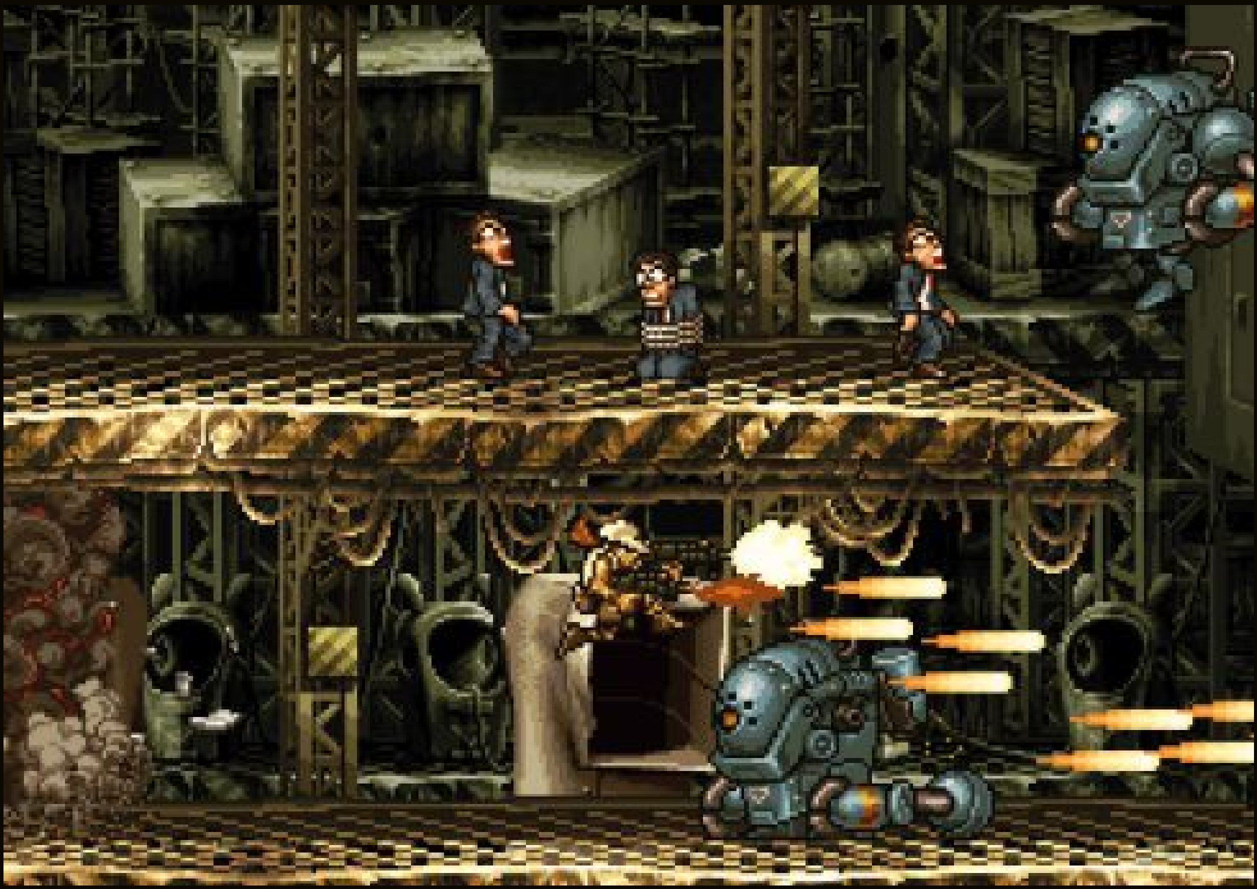
In a scene reminiscent of the seminal Hollywood movie *Apocalypse Now*, you find yourself travelling down a jungle river with enemy Hydrofoil Units trying to take you out. Luckily, a POW takes charge of the paddling, which frees you up to fight back.



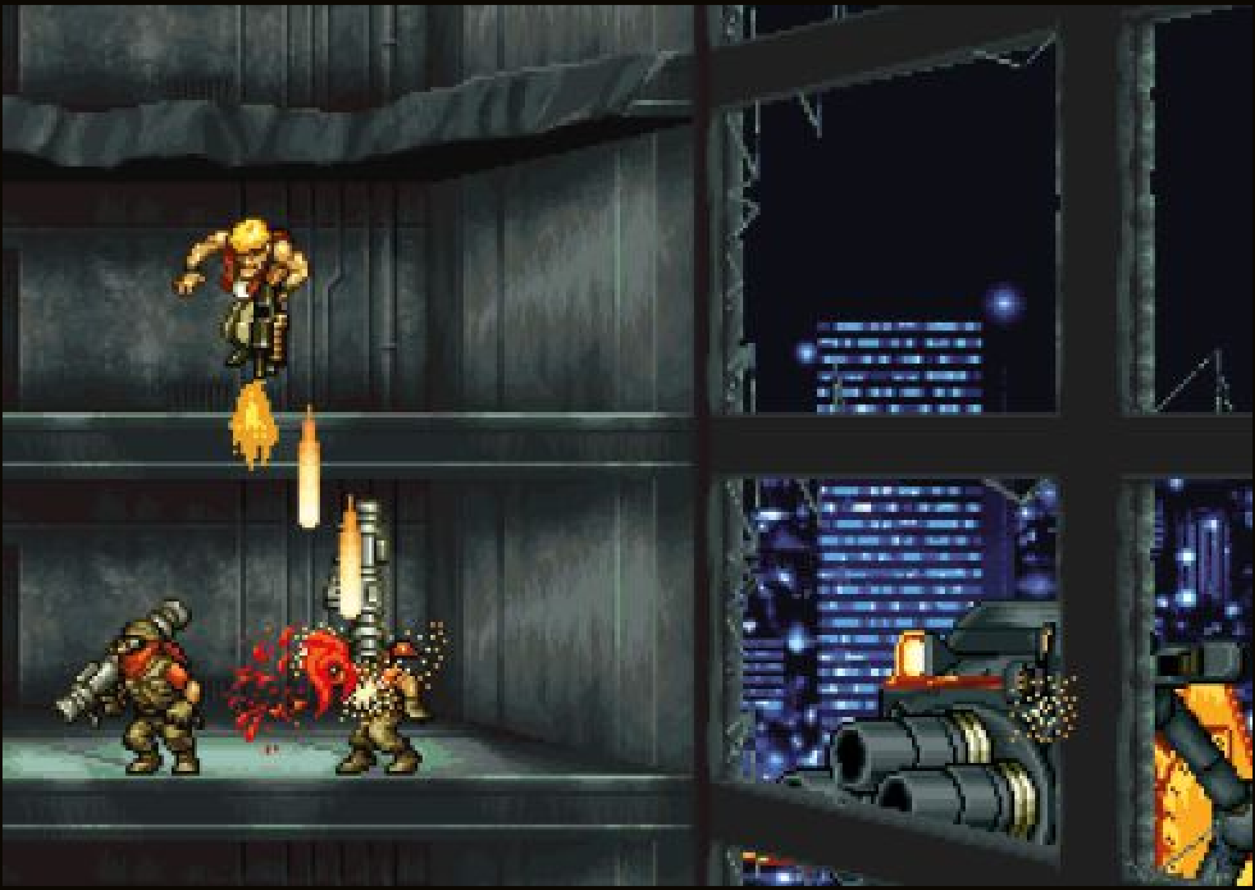
Honey I blew up the Slug! This oversized Mission 2 boss is clearly based on the SV-001, but it's absolutely huge. Every now and then, it performs a wheelie – as shown here – and tries to crush you.



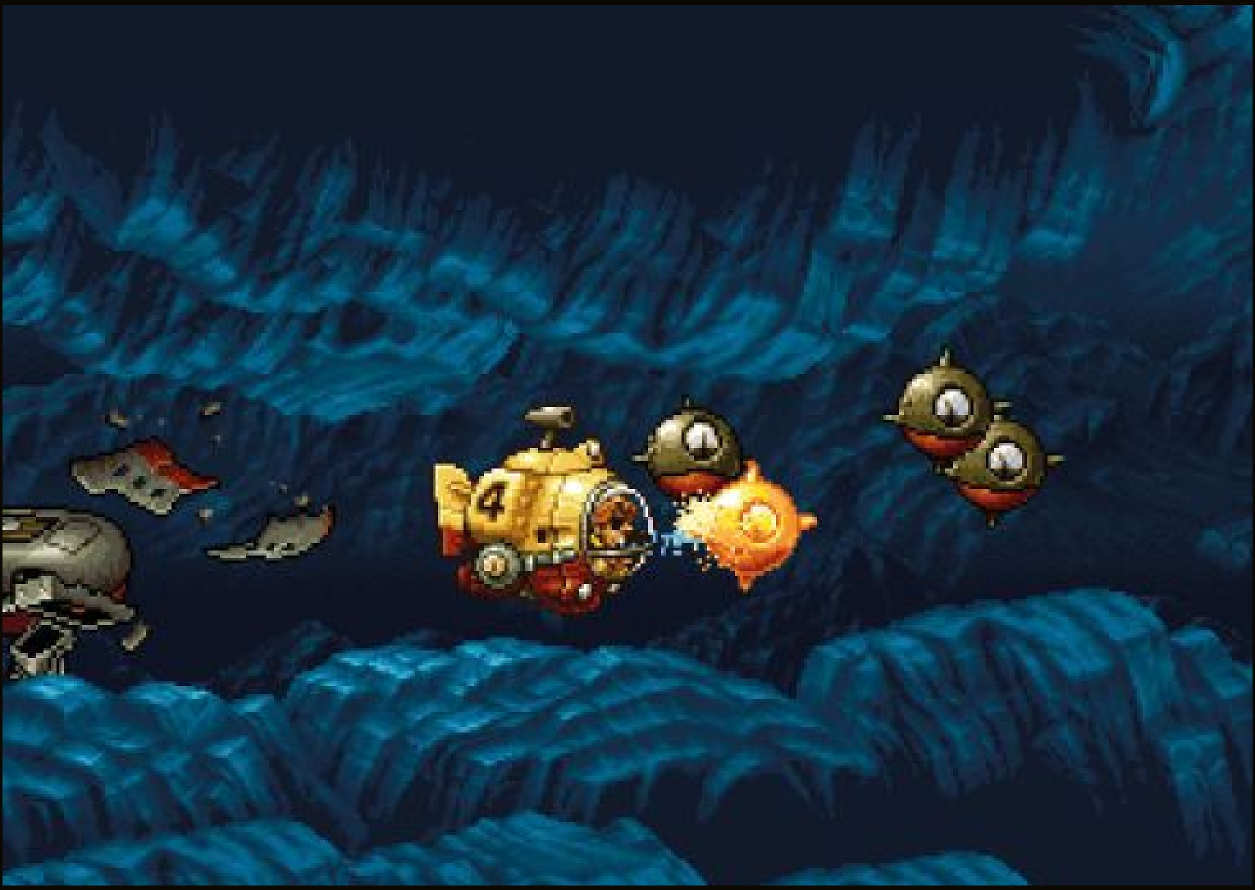
New to *Metal Slug 5*, the slide-dash is performed by pressing the jump button when crouching. It's particularly useful for dodging incoming gunfire and attacking enemies, as you're able to fire at the same time.



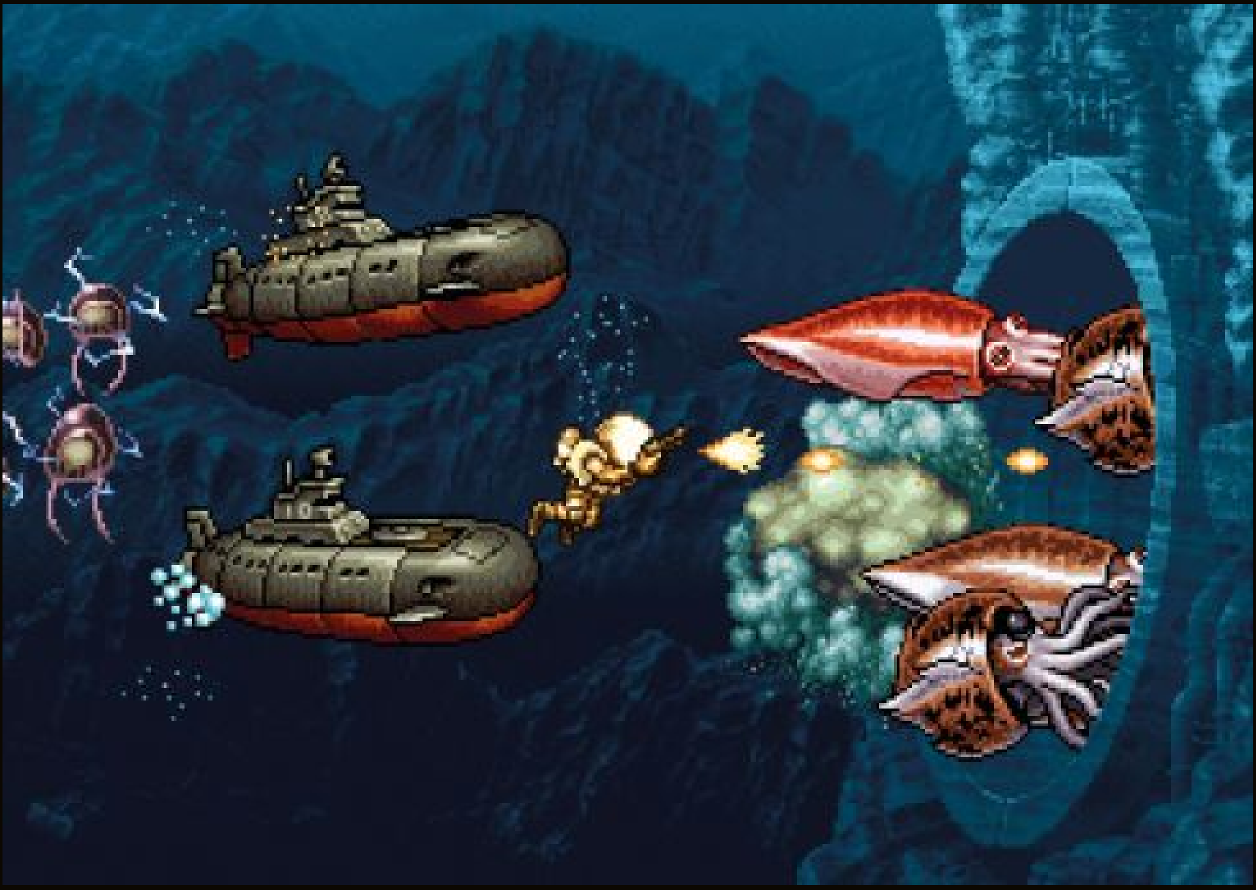
New to *Metal Slug 5*, the Executive POWs behave exactly the same as the standard ones; when saved, they open their briefcases and give you a random item.



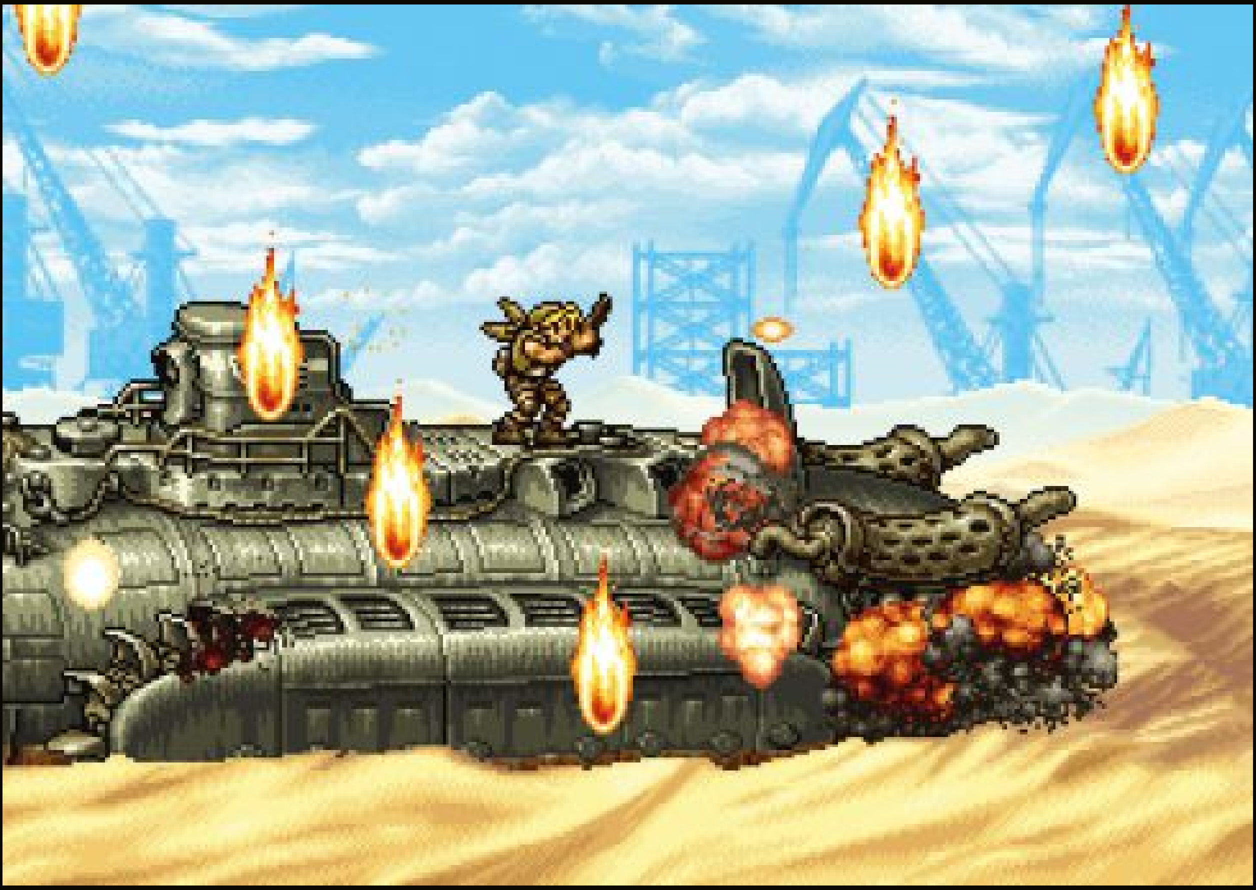
Wall Walker, the unique boss from Mission 3, can crawl up and down the outside of buildings.
Its huge cannon fires missiles, and the driver occasionally appears to call more soldiers to assist.



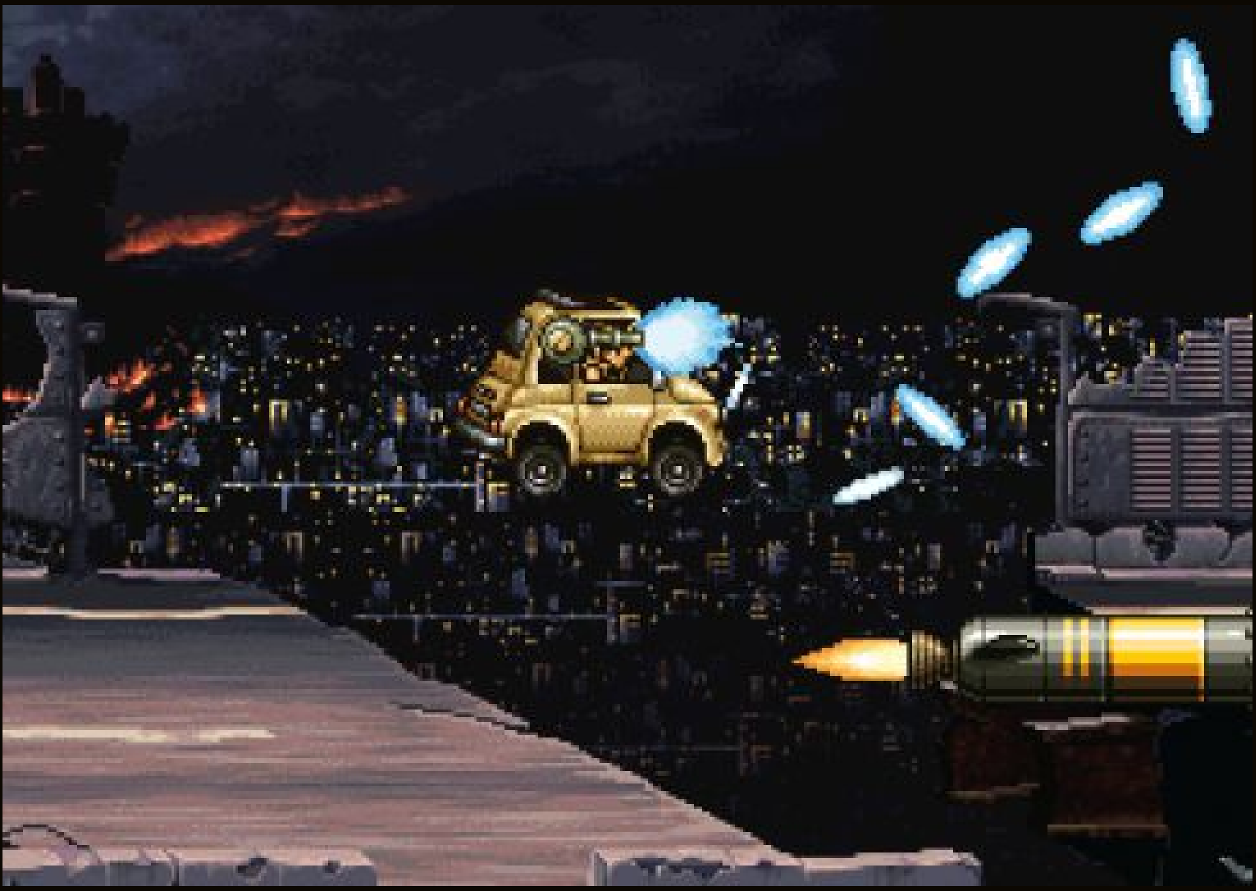
First seen in *Metal Slug 3*, the Slug Mariner is the best way to navigate through the underwater caves.
Its twin Vulcans are essential for dealing with enemy scuba divers, mines and even giant squid.



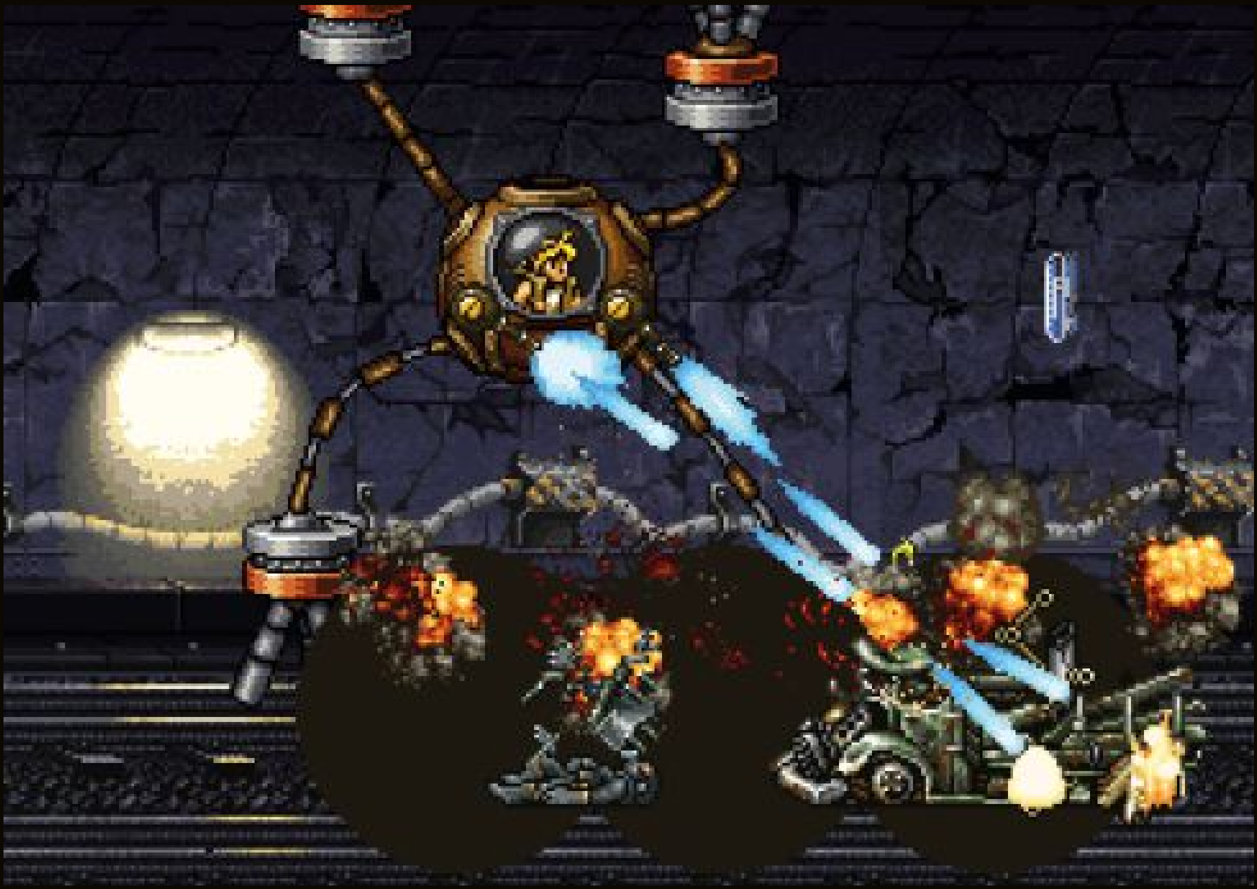
When your Slug Mariner takes too much damage, you must bail out and swim though the hostile water stages. Naturally, you're more susceptible to damage and life is significantly harder without your trusty Vulcan cannons.



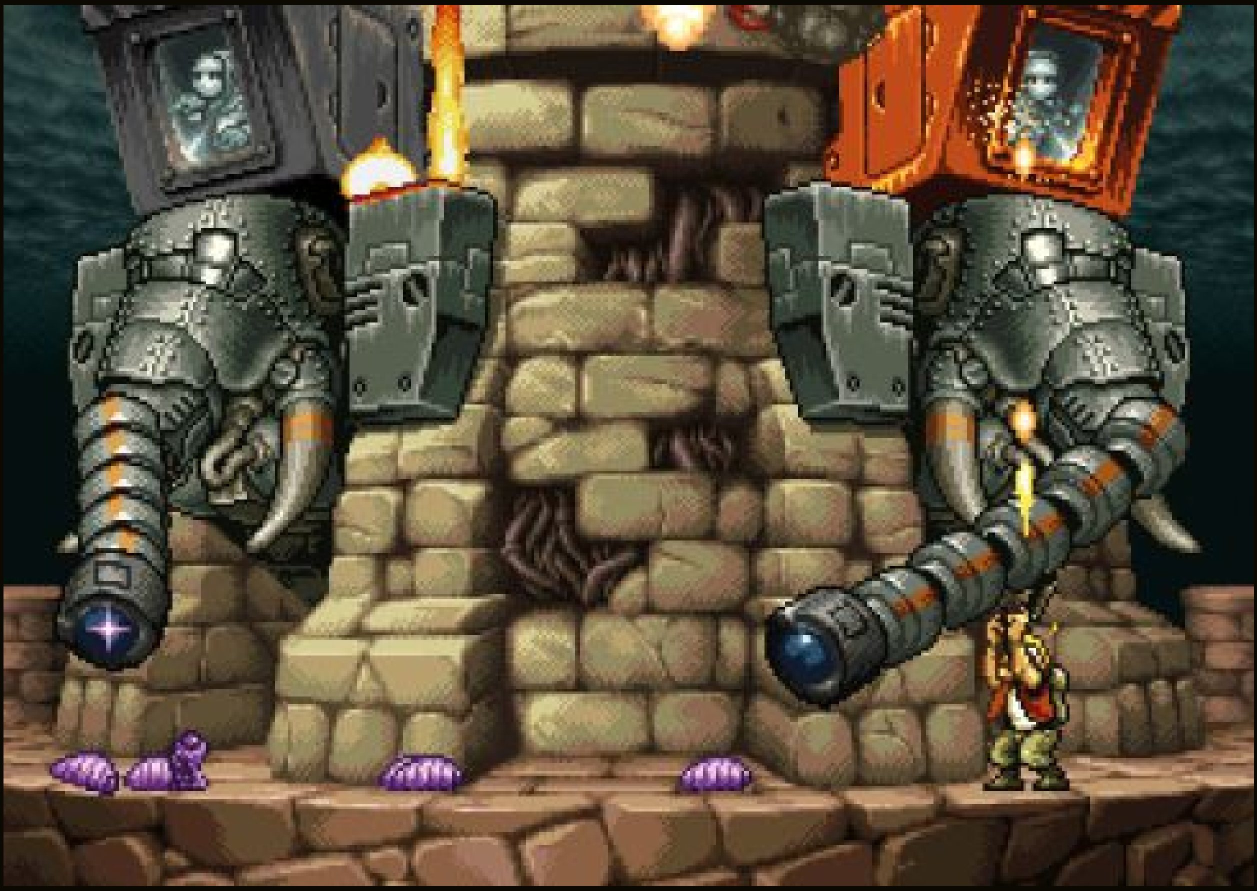
Being able to travel both above and beneath the sand, the Sand Marine is the formidable end boss of Mission 4. Its main attack consists of deadly fireballs that are hard to avoid.



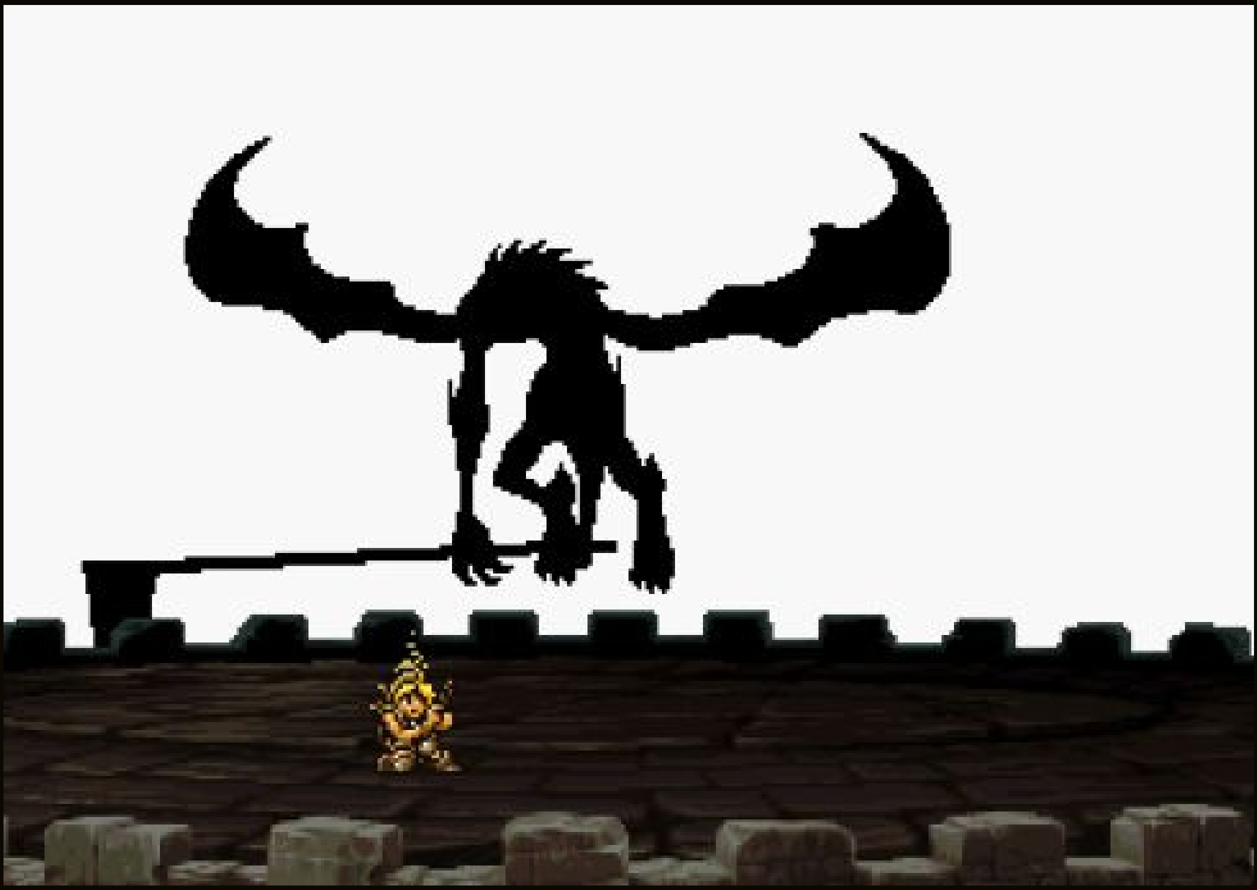
A cheeky reference to a certain classic Italian car, the TIAF 660 Slug is driven in this high-octane scrolling section of the Final Mission. A Car Slug was first teased in the concept art for *Metal Slug 3*.



Another Slug exclusive to *Metal Slug 5*, the Augensterm is a giant spider-like mech that can walk on either the floor or ceiling. Its high seating position offers great protection from enemy fire.

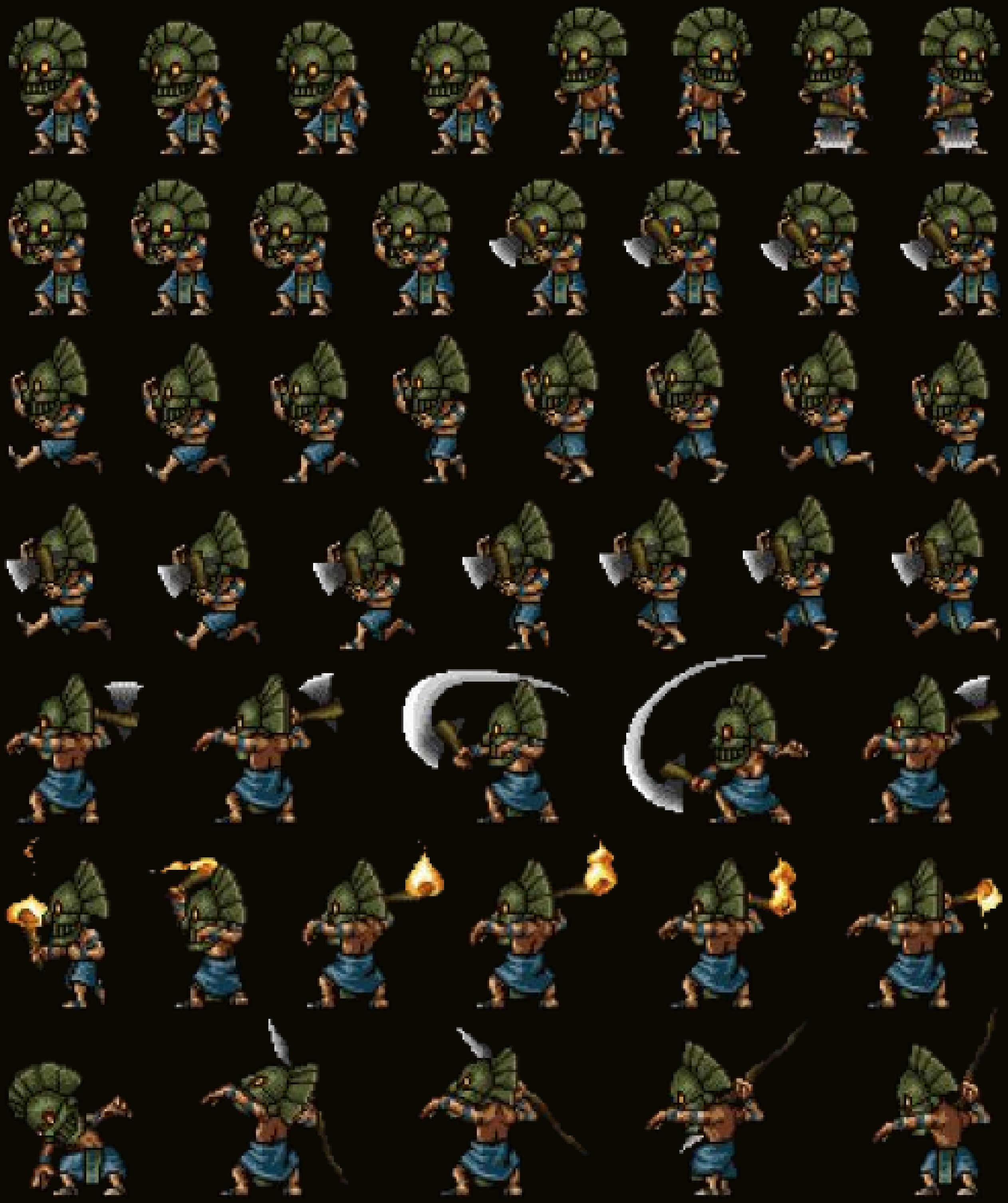


This mid-boss in the Final Mission is aptly named the 'Mammoth Tower' due to the pair of mechanical elephant heads on either side. Beware of the laser-firing trunks and mutant purple maggots that drop down onto the floor.

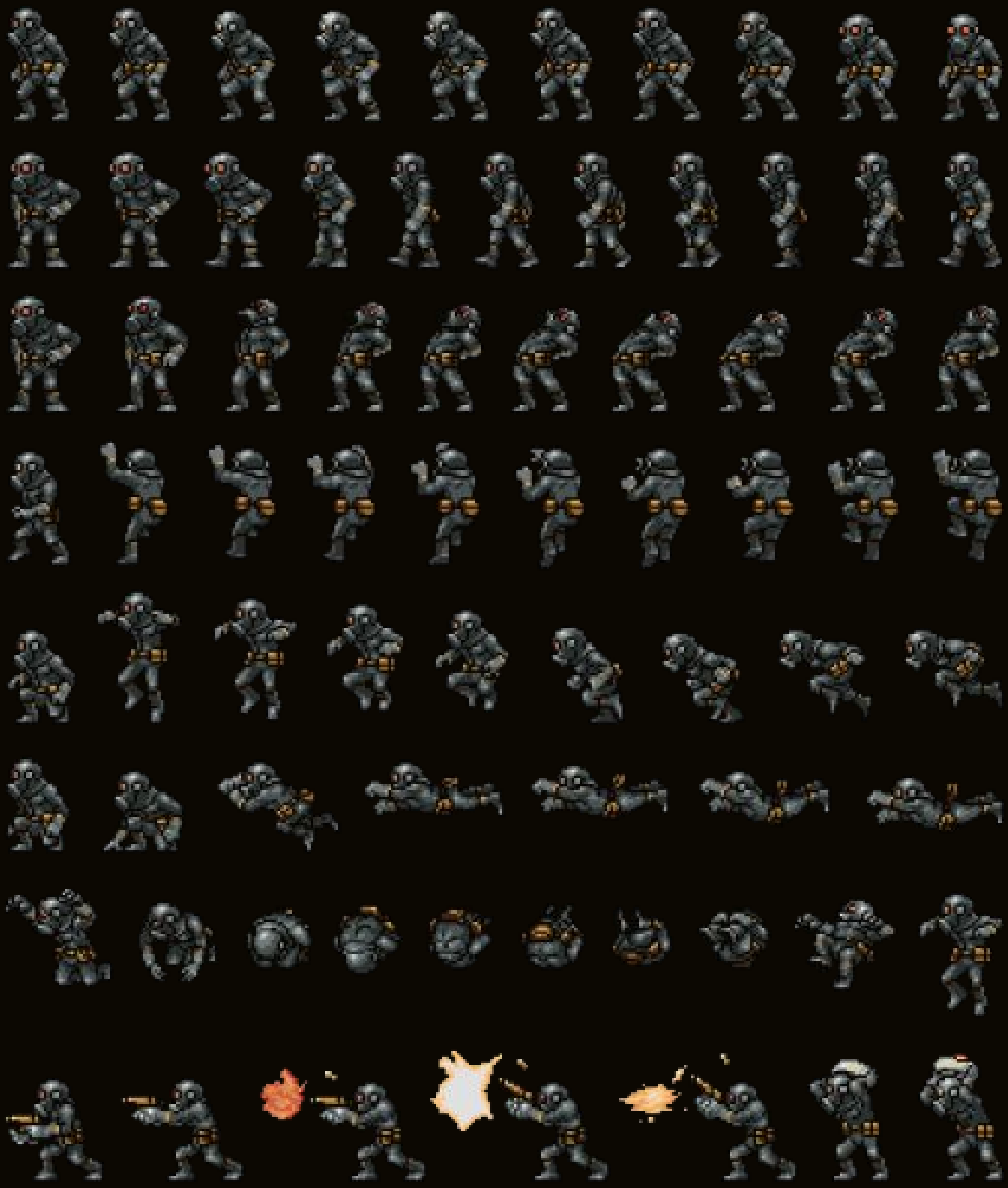


Evil Spirit Incarnate – the final boss in *Metal Slug 5* – is notable for being the biggest sprite to appear in any Metal Slug game. Its scythe attack is lethal, and only careful shots to the skull on its chest will win the battle.

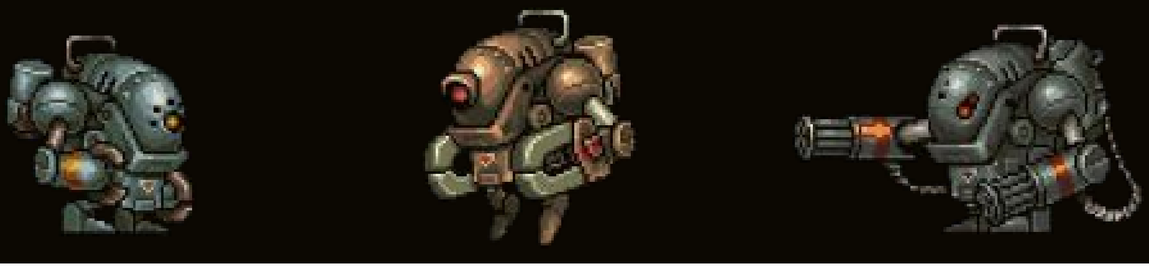
Metal Slug 5 introduced the Natives as a new enemy. Throughout the game, you come up against various tribe members, such as Axe Native, Torch Native and Spear Native. Most are relatively easy to defeat, and some are even unarmed.



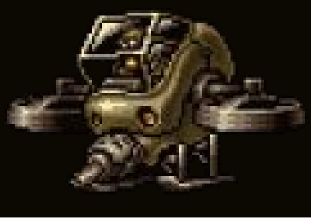
Replacing the Rebel Soldiers, *Metal Slug 5* features members of the Ptolemaic Army. Unlike your previous enemies, the Ptolemaic Army is a collection of special forces, terrorists and cyborgs, often wearing masks and suits to protect their identity.



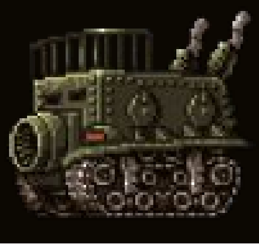
Metal Slug 5 introduces some new concepts to enemy designs from previous games. It also features classic vehicles, such as the Nop-03 Sarubia, that have been re-engineered by the Ptolemaic Army and now boast a new appearance.



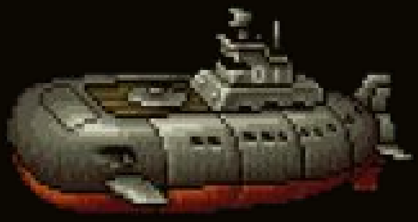
Gunner, Claw and Machine Gun Units



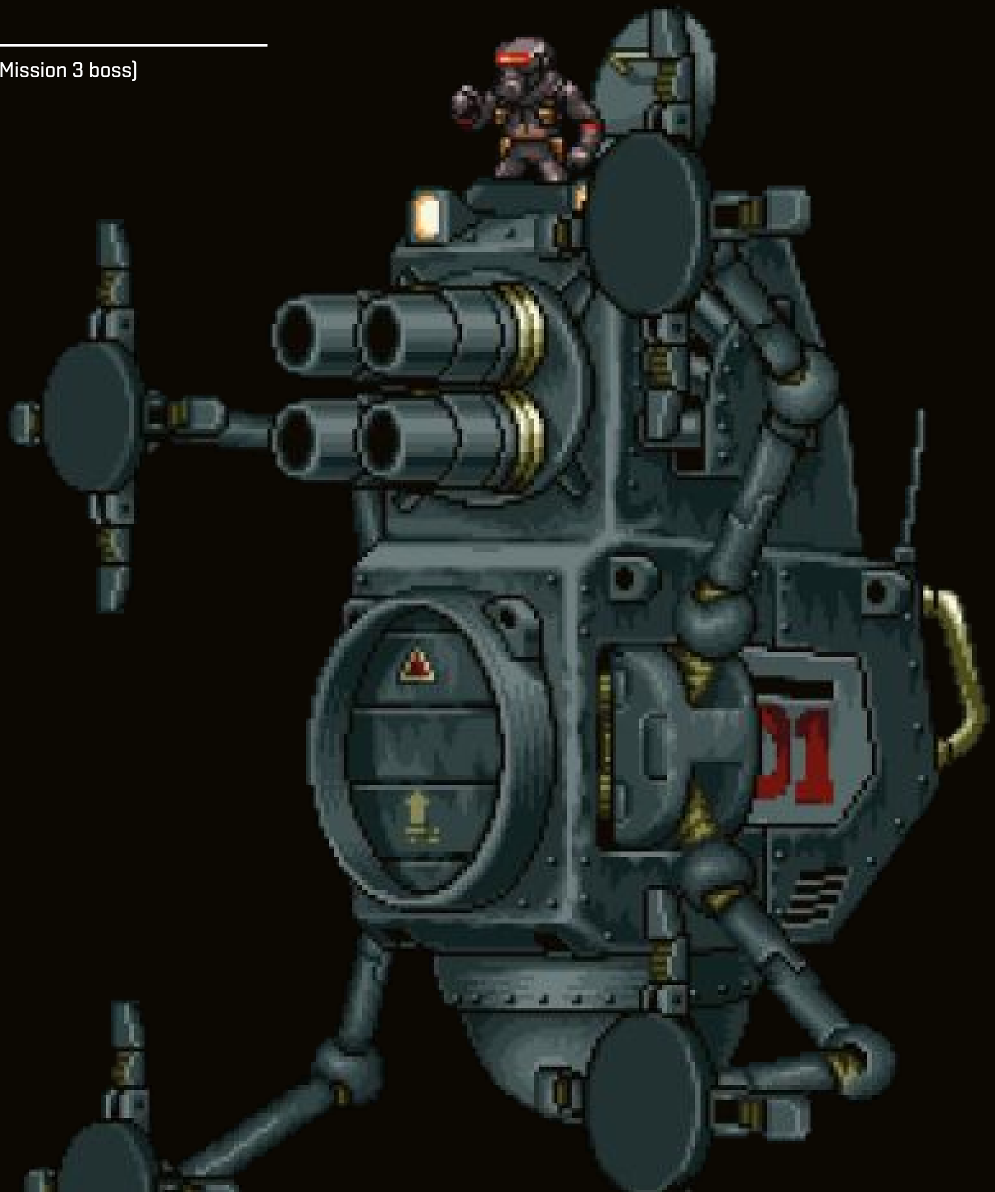
Hover Vehicle



Ptolemaic Nop-03 Sarubia tank

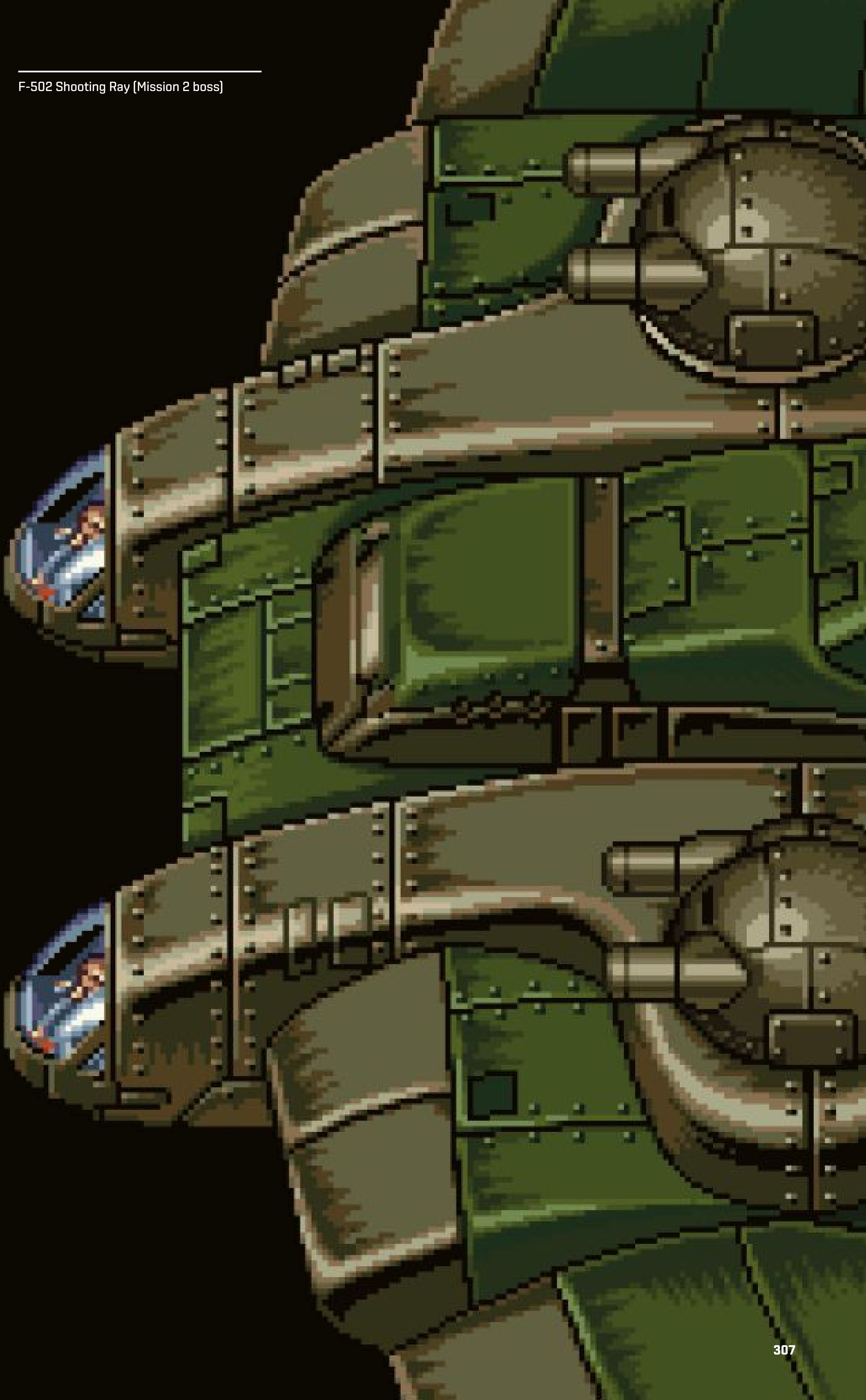


Ptolemaic submarine

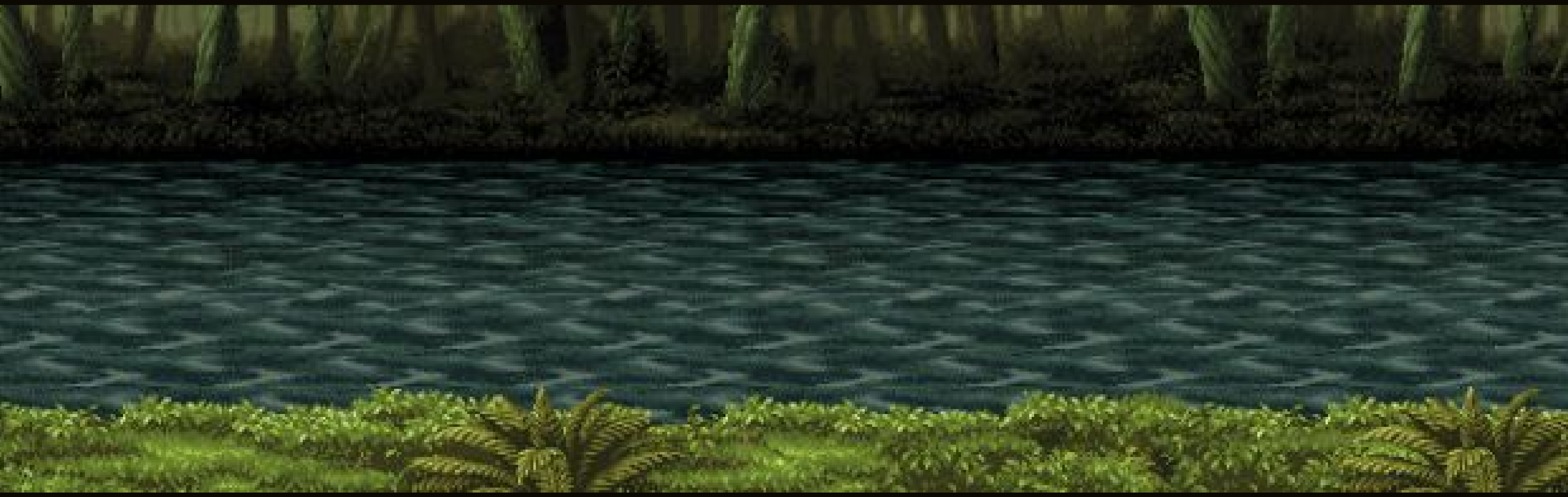


Wall Crawler (Mission 3 boss)

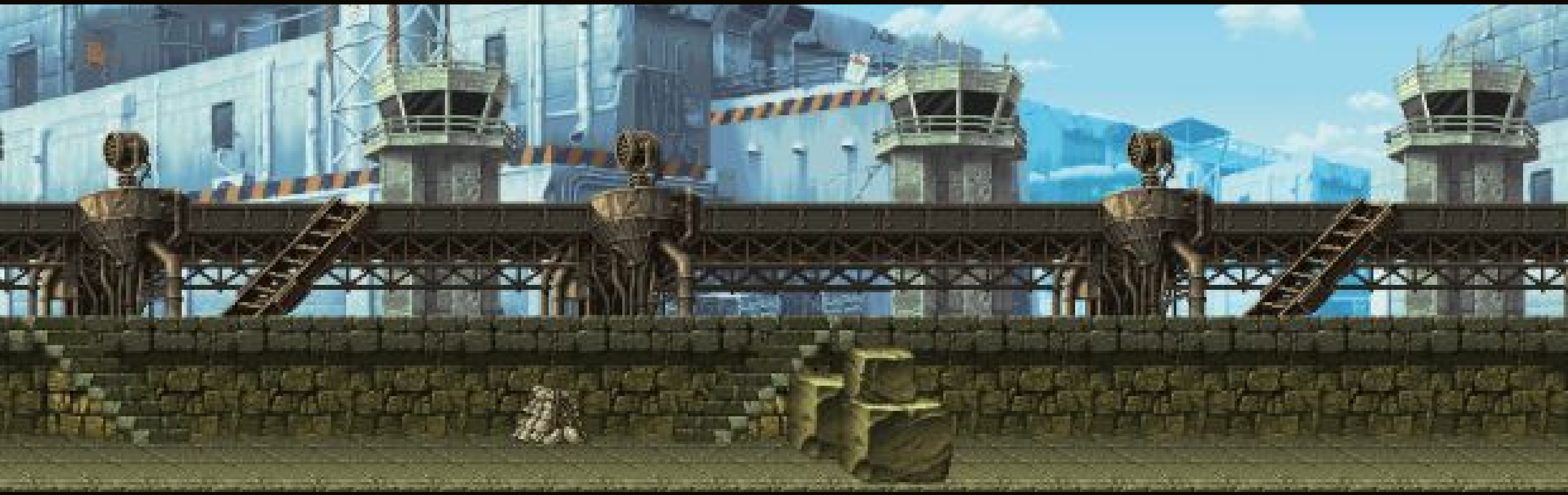
F-502 Shooting Ray (Mission 2 boss)



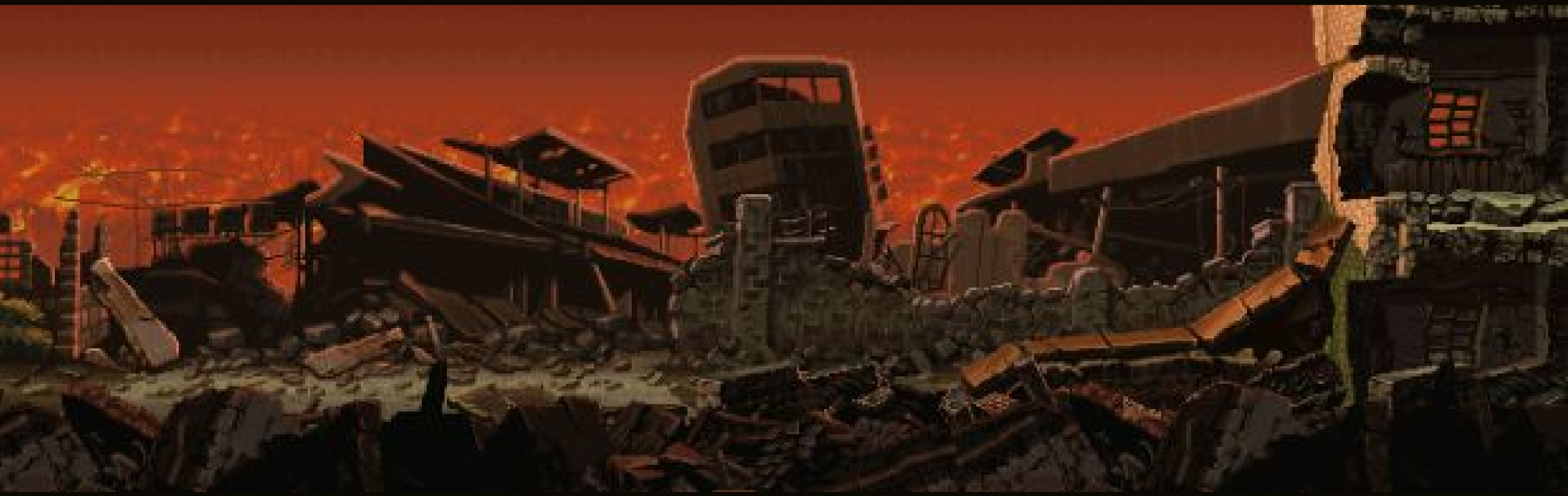
Yet more richly detailed, hand-drawn backgrounds, something of a signature of the entire Metal Slug series. As always, the levels are diverse in their locations, and – unlike its predecessor – *Metal Slug 5* had all-new backgrounds created for it.



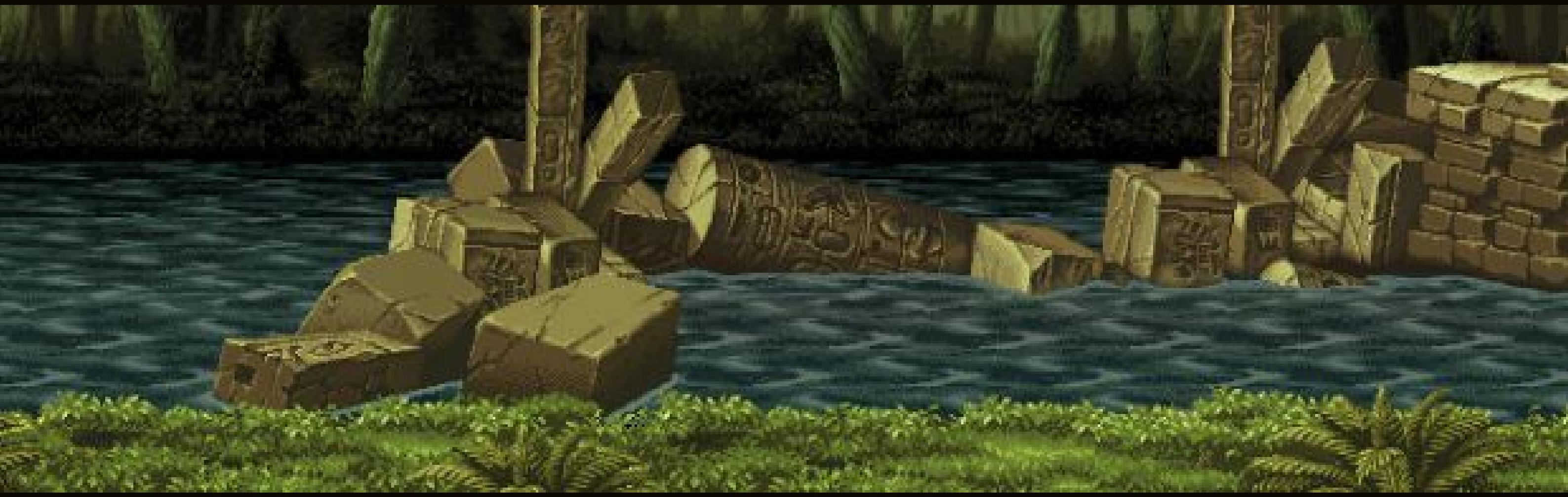
Mission 1

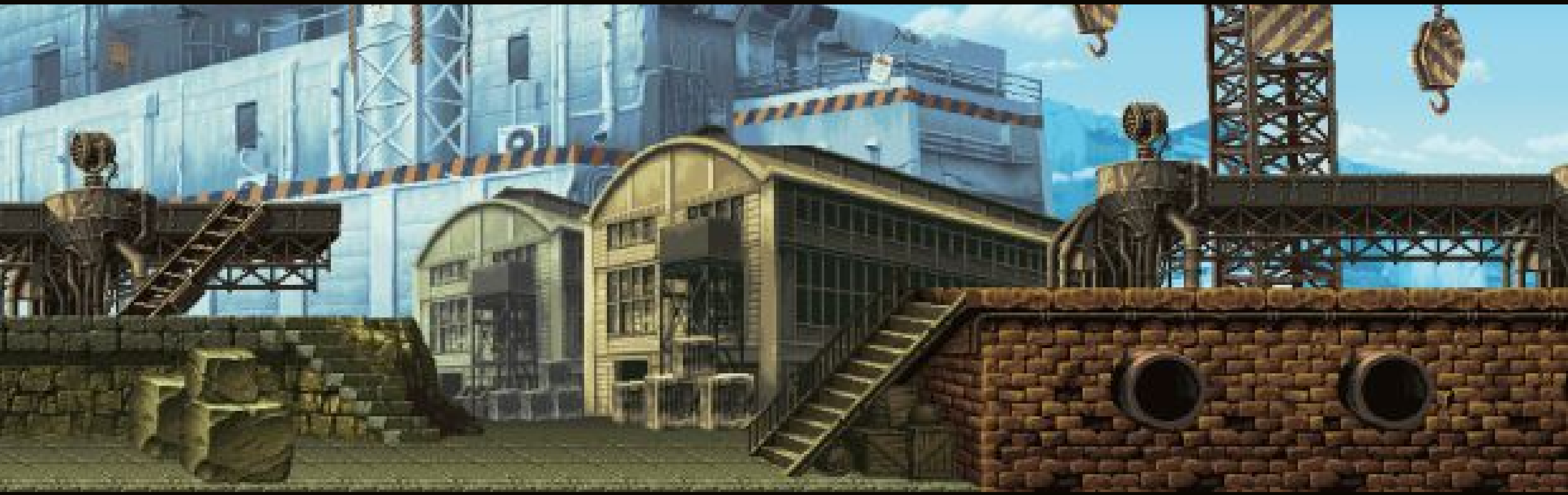


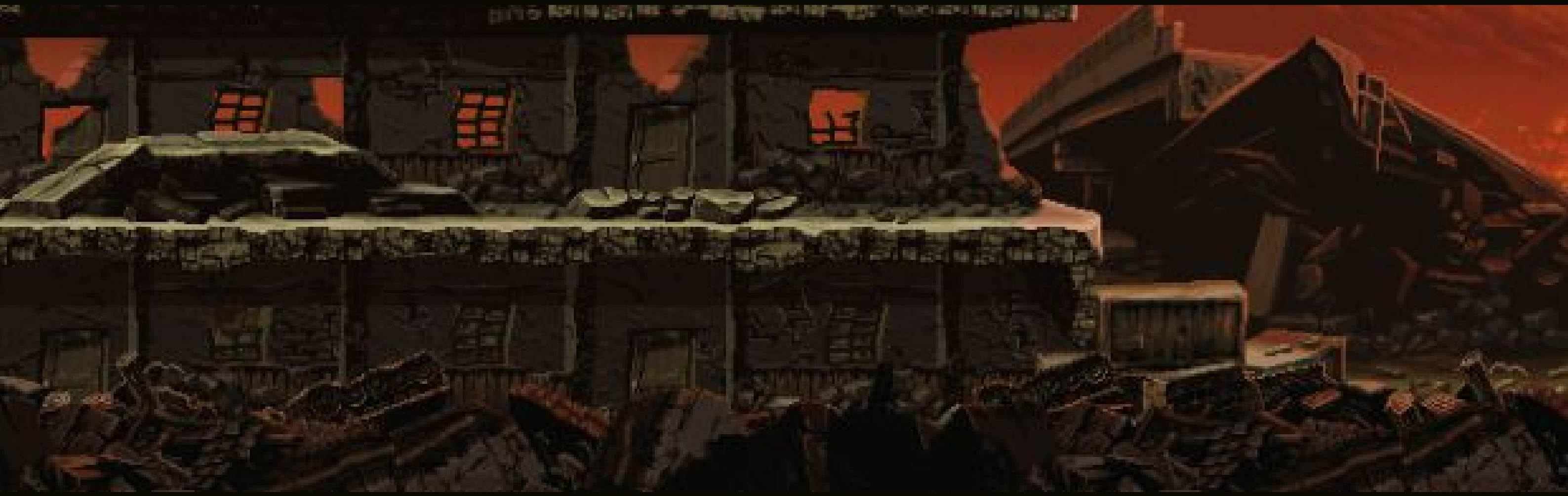
Mission 4



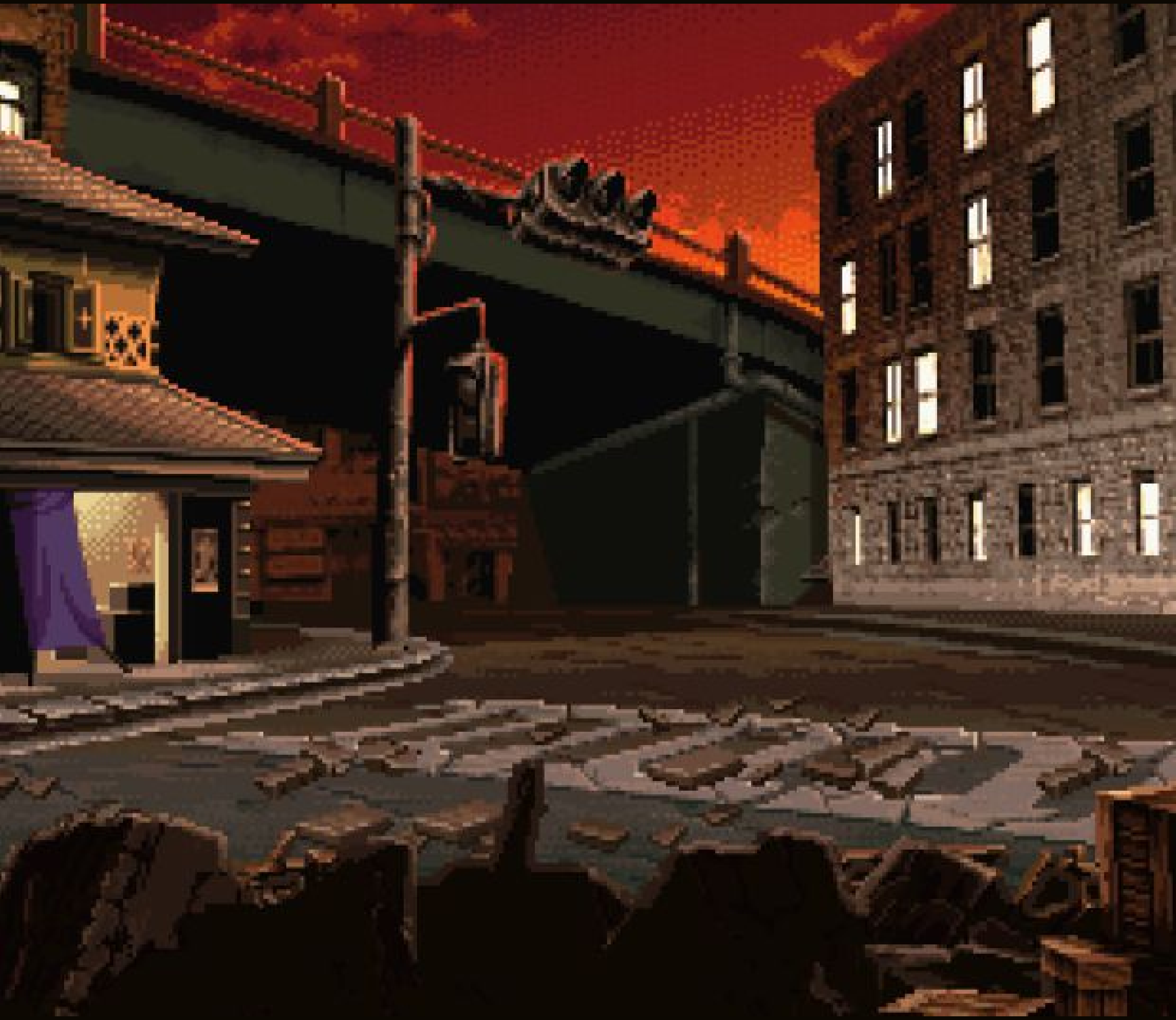
Final Mission

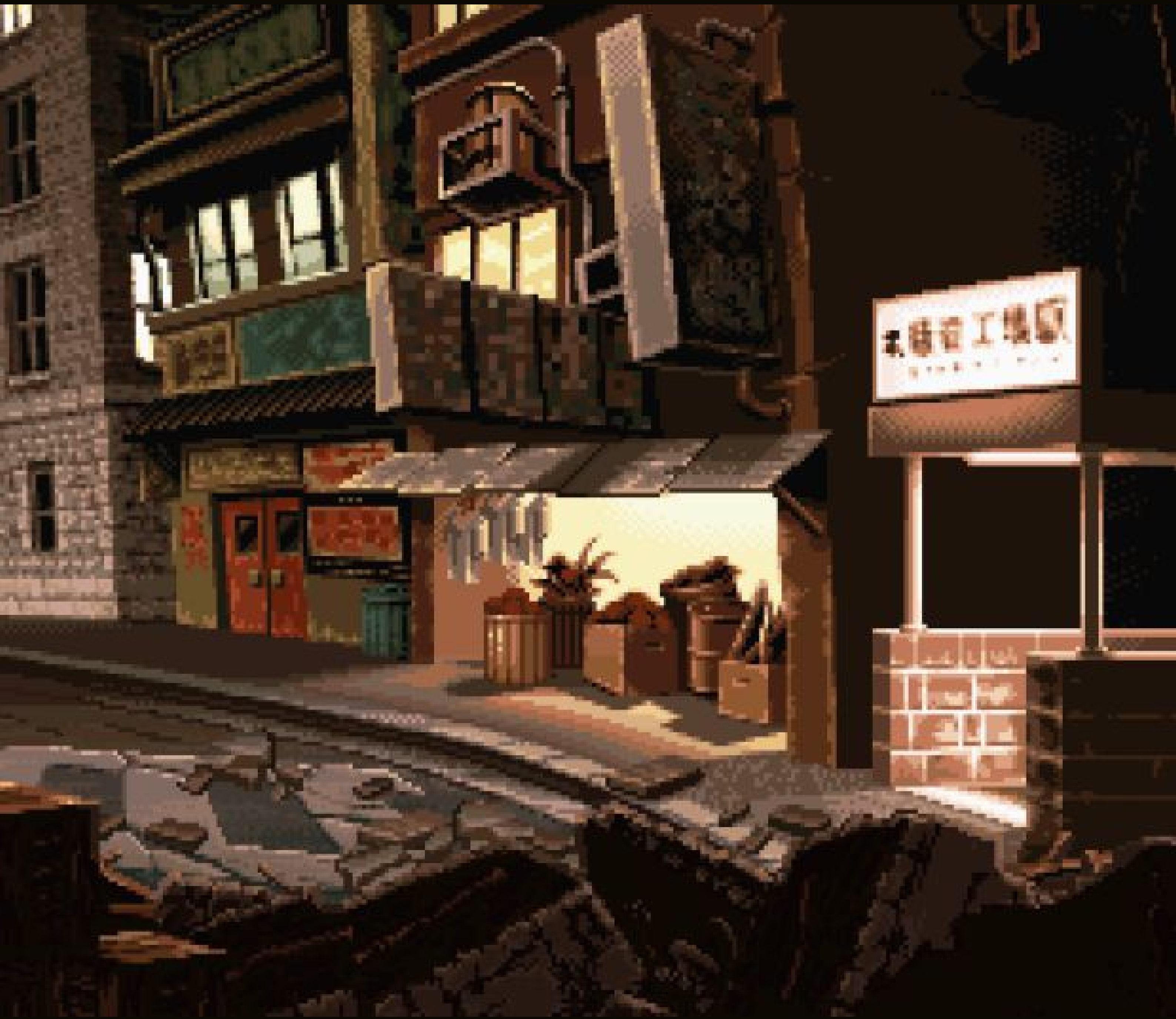






More reminiscent of a stage from *THE KING OF FIGHTERS*, this single-screen scene from the Final Mission is unique because the backgrounds in Metal Slug rarely have such a pronounced sense of perspective.





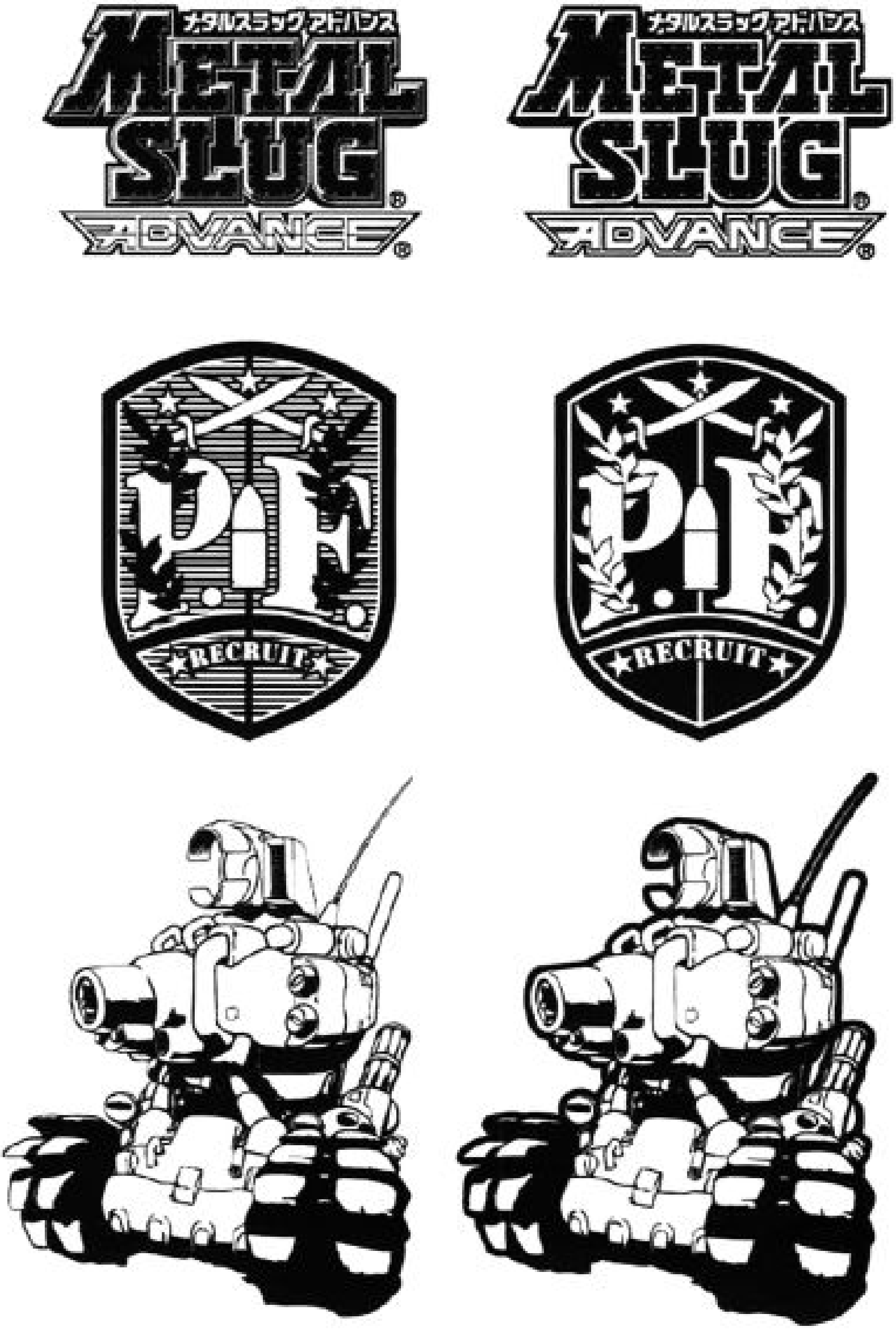
First released: 2004 / Players: 1 / Developed by: Noise Factory / Published by: SNK

METAL SLUG™
ADVANCE®

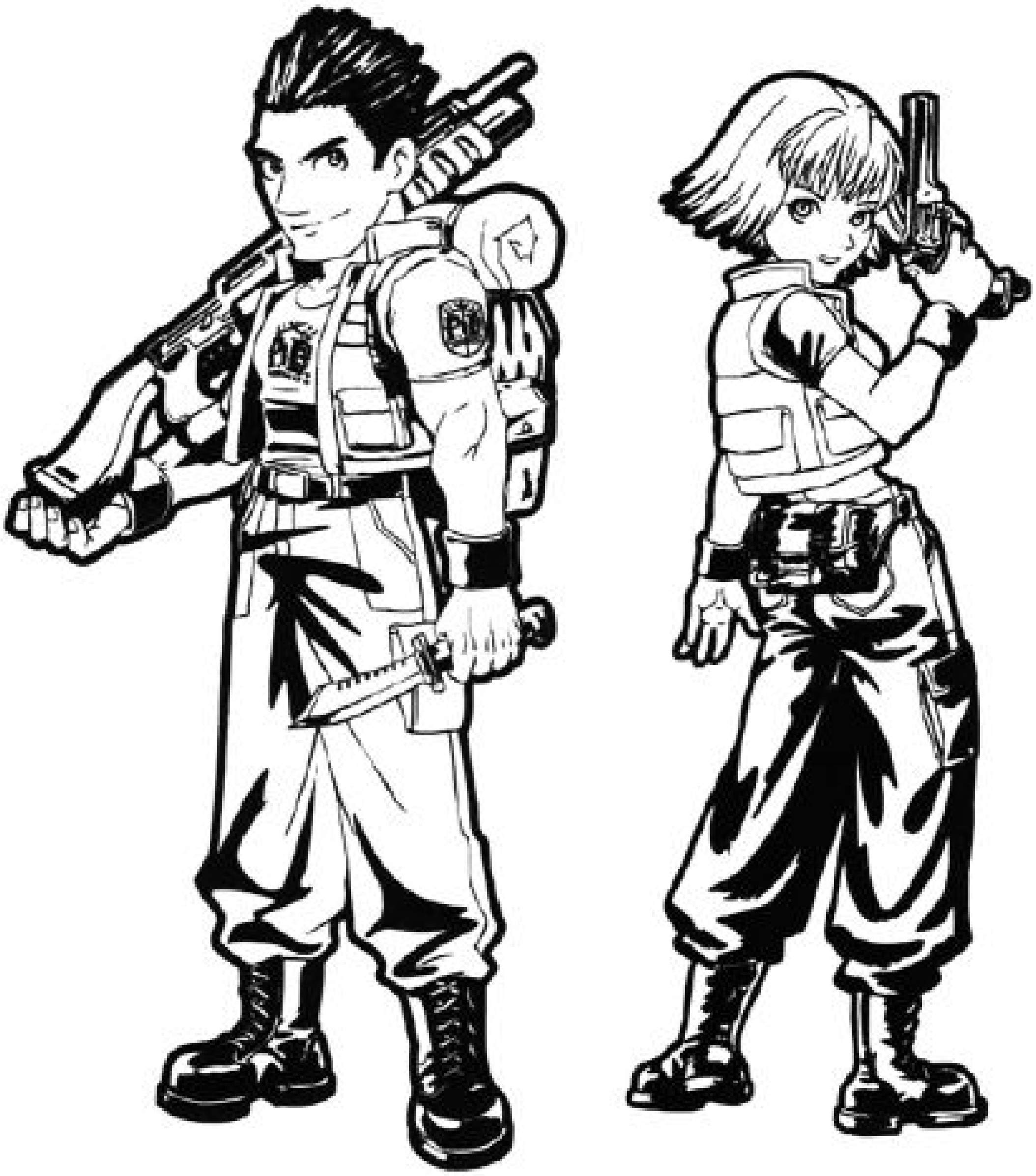
GBA

After the success of the NEOGEO Pocket Color entries, the series moved on to the Game Boy Advance for its next handheld adventure. Developed by Noise Factory, *Metal Slug Advance* is, to date, the only instalment in the franchise to not feature the heroic Marco Rossi, and instead has newcomers Walter Ryan or Tyra Elson in the lead roles. A card-collecting system drastically boosted the title's long-term appeal, with 100 different variants to collect, some of which would unlock special 'Slug' vehicles or enhance the player's power.

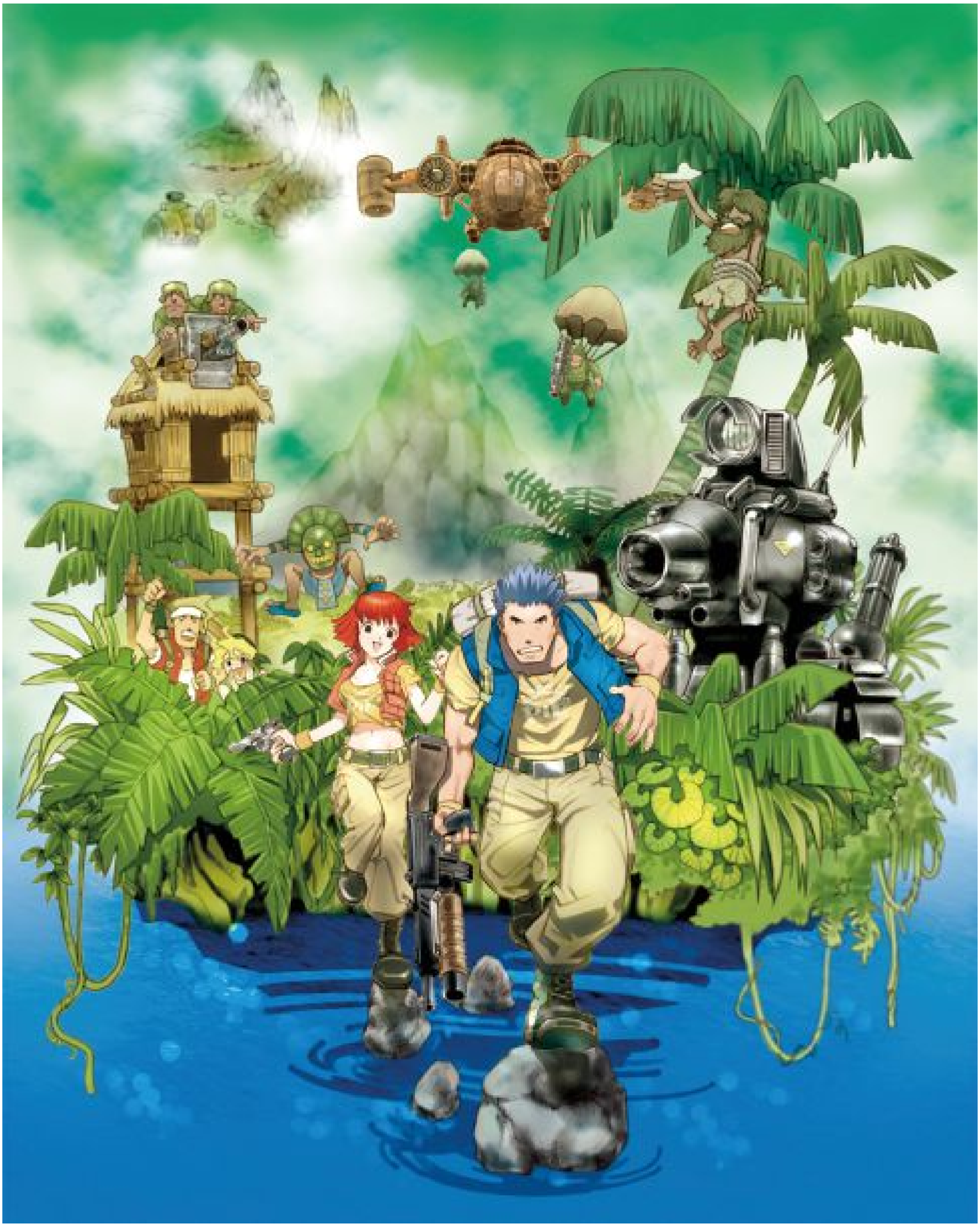
Black-and-white designs for the *Metal Slug Advance* logo, crest for the Peregrine Falcons Squad (P.F. Squad) and SV-001.

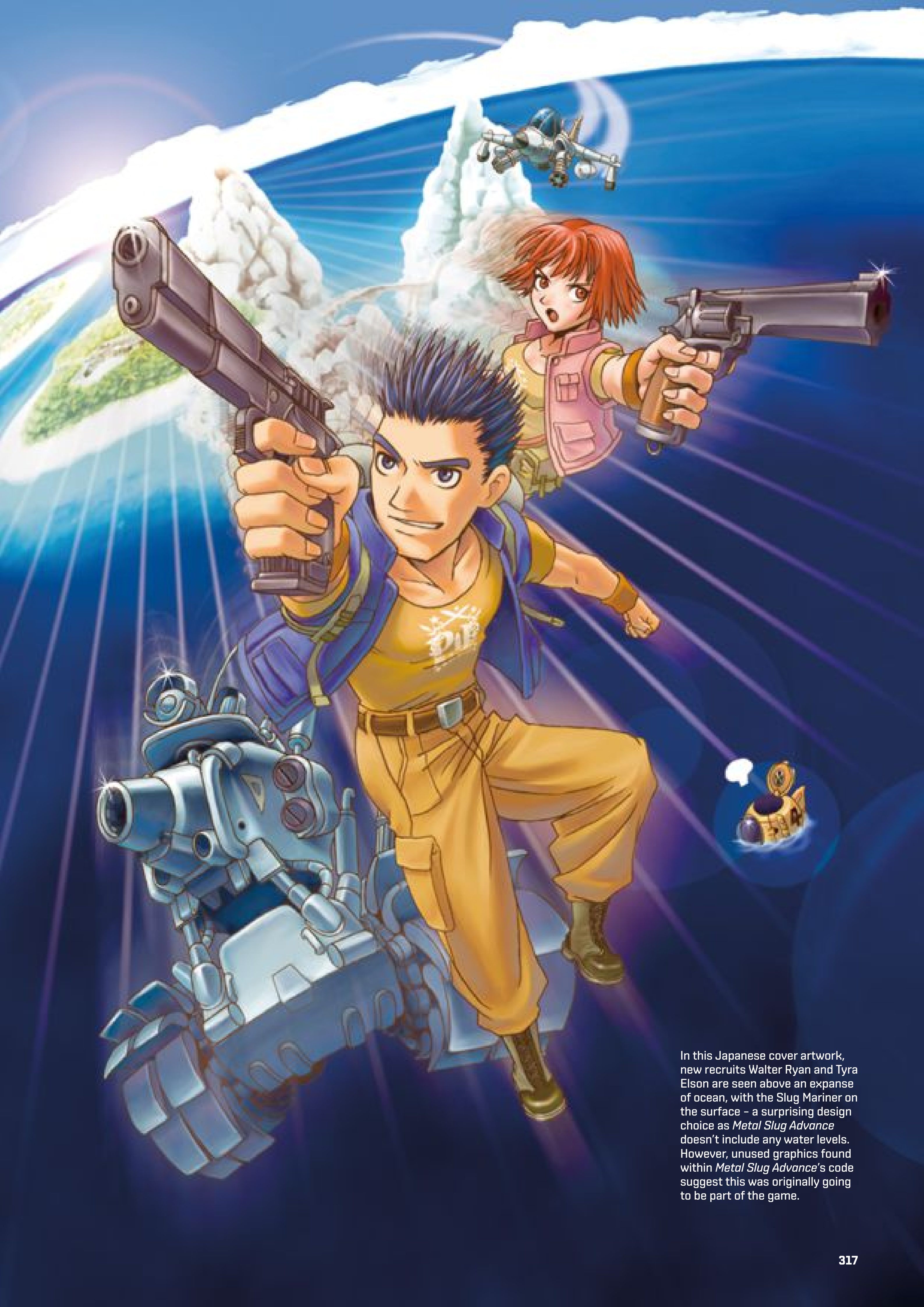

メタルスラッグ アドバンス
METAL SLUG
ADVANCE
メタルスラッグ アドバンス
METAL SLUG
ADVANCE
P.F.
RECRUIT
P.F.
RECRUIT

Concept art for Walter Ryan and Tyra Elson, both junior members of the P.F. Squad. In this image, they're fully armed and ready for battle.



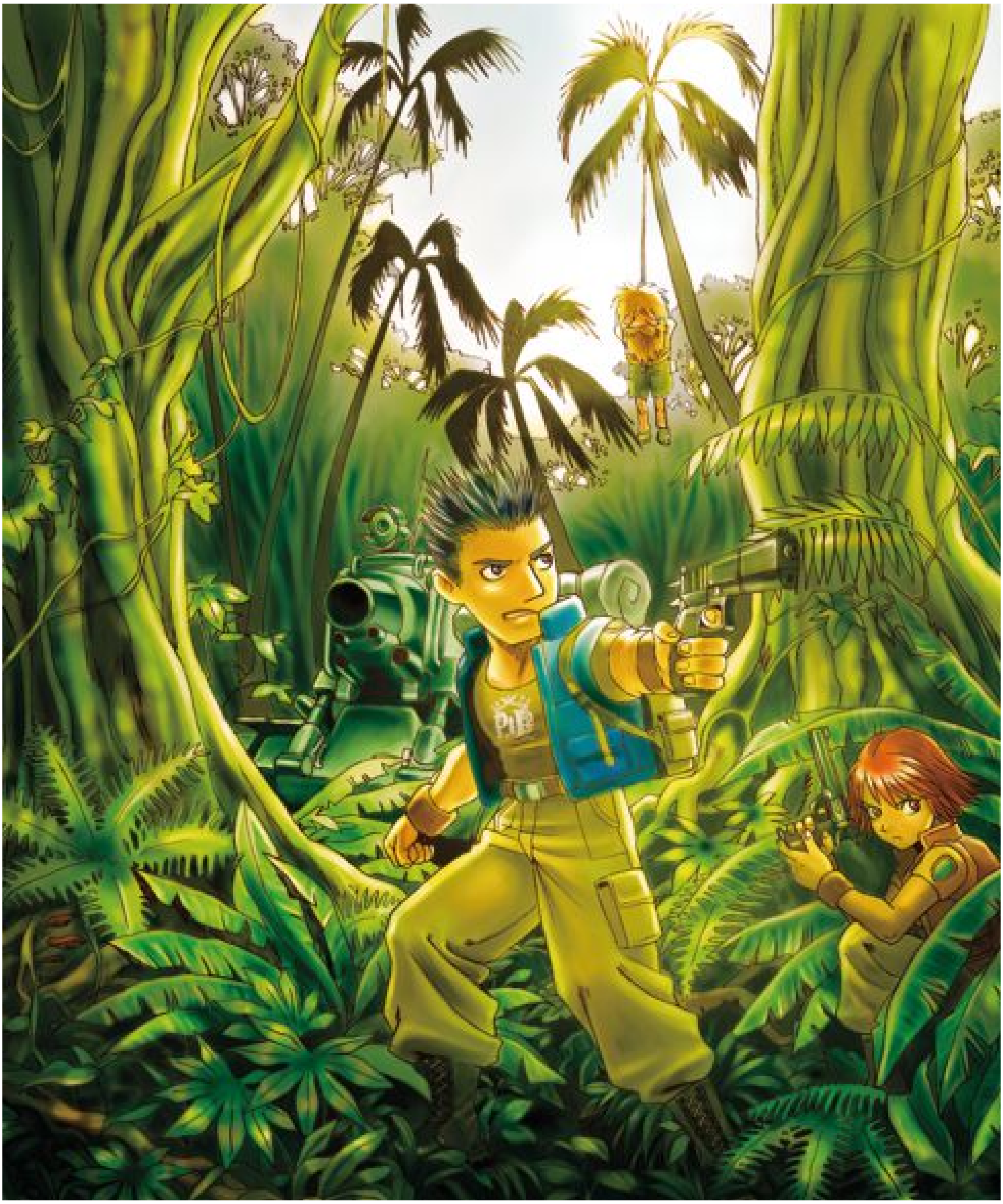
Metal Slug Advance is the first game in the series to not include Marco Rossi, but the fact that both he and Eri Kasamoto both appear on this cover artwork for the Western release suggests that they were originally planned to feature as support characters in the game.



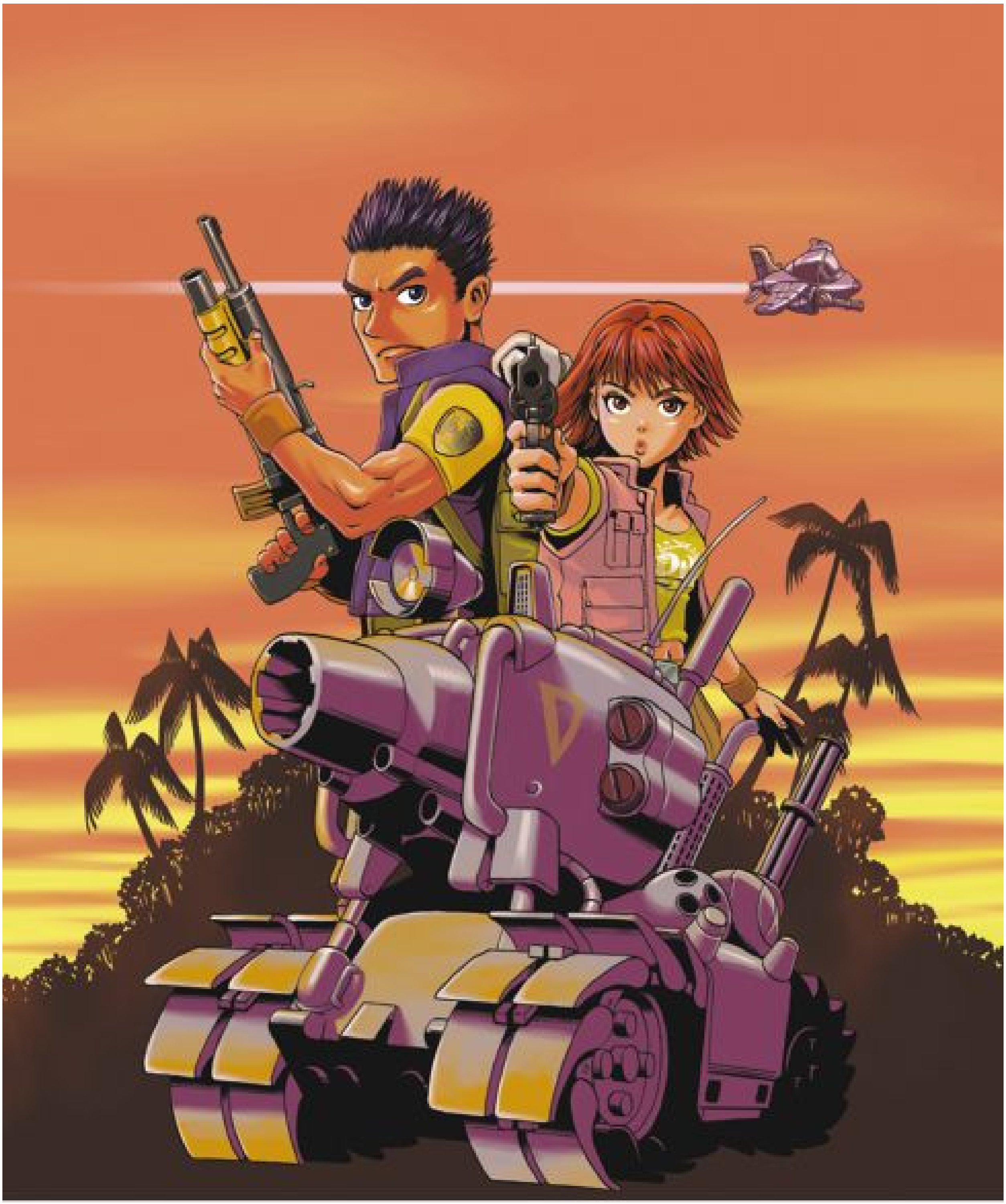


In this Japanese cover artwork, new recruits Walter Ryan and Tyra Elson are seen above an expanse of ocean, with the Slug Mariner on the surface – a surprising design choice as *Metal Slug Advance* doesn't include any water levels. However, unused graphics found within *Metal Slug Advance*'s code suggest this was originally going to be part of the game.

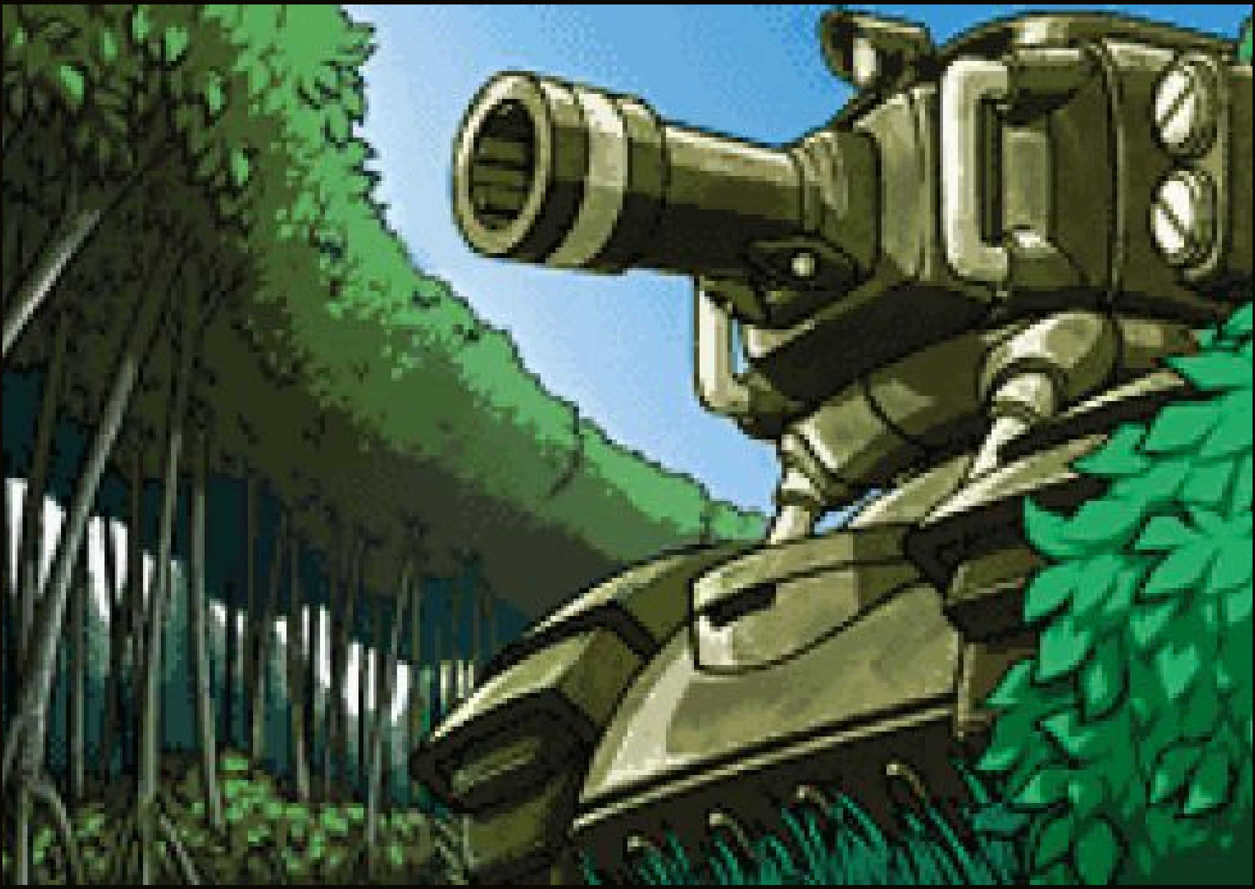
This artwork appears on the rear of the Japanese box. It's truer to the finished game, with Walter and Tyra seen stalking through a jungle setting.

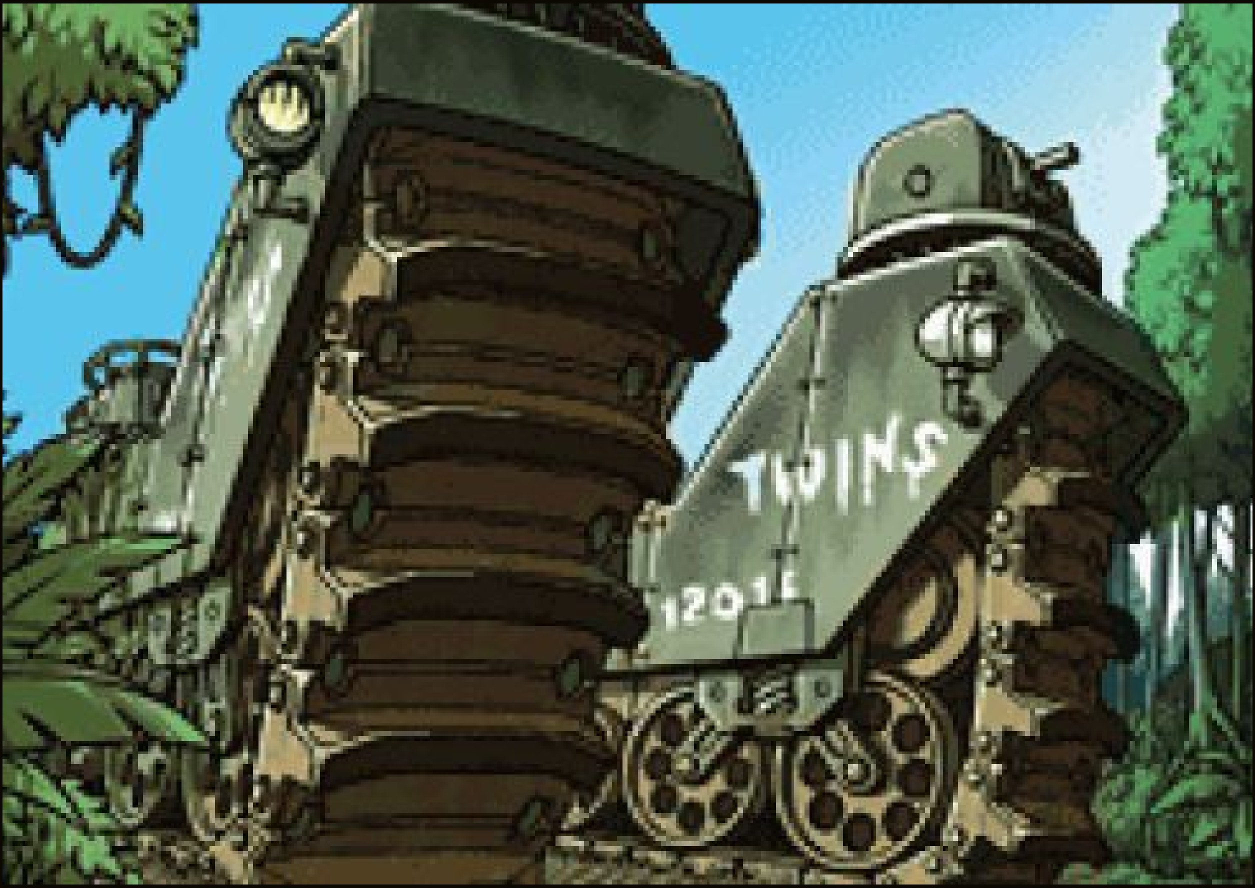


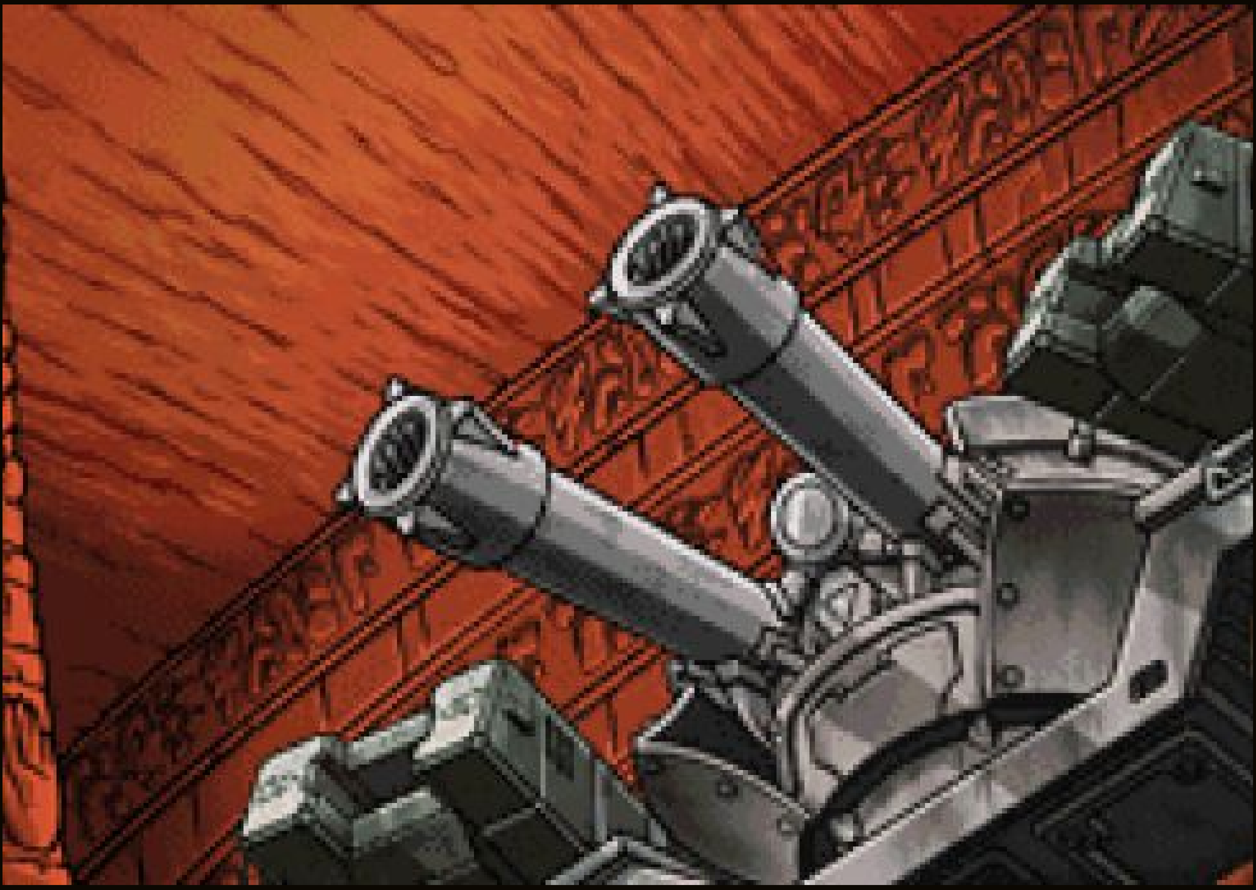
Additional promotional artwork that once again showcases the main protagonists. This time, the famous SV-001 is much more prominent, and the image adopts a tropical sunset palette of oranges, yellows and purples.

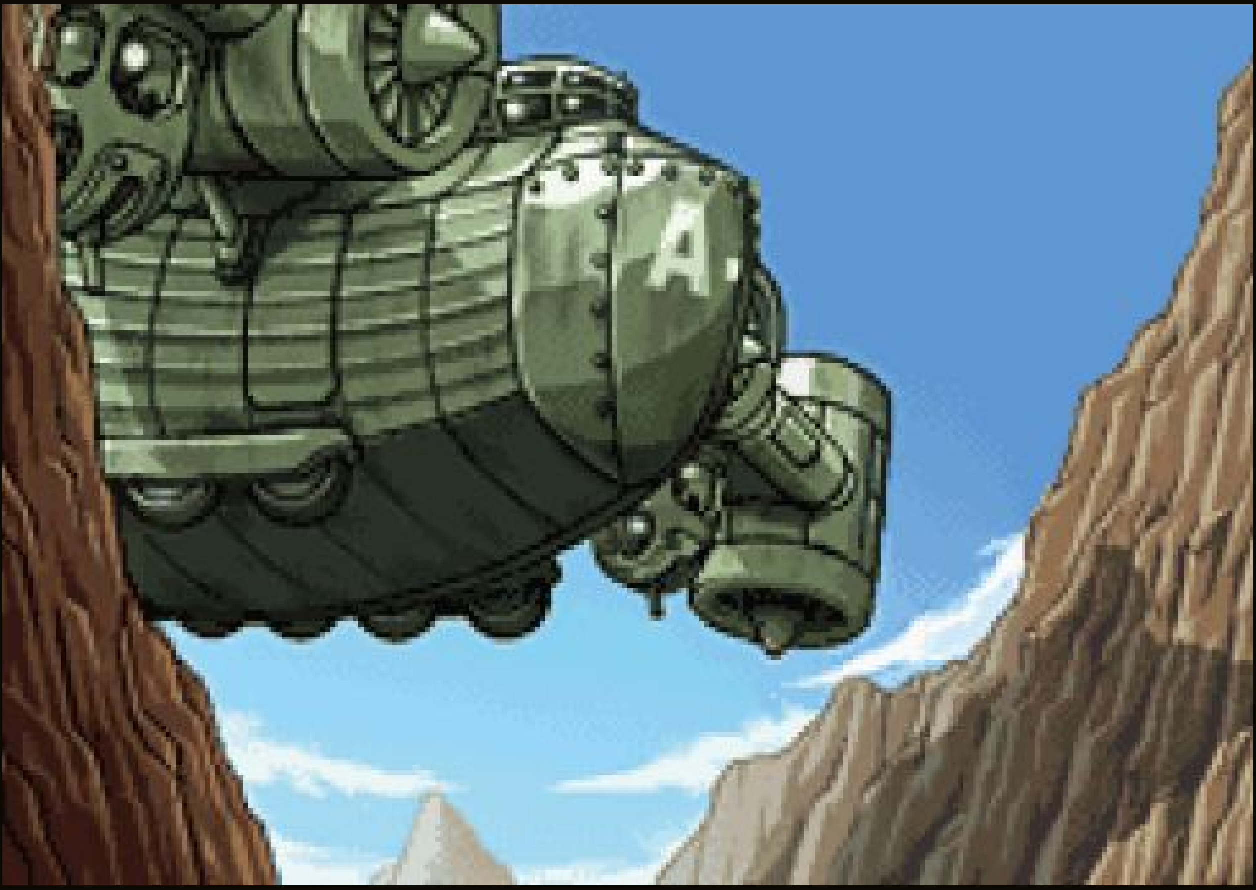


Before each mission, you see a sneak preview of that level's boss. These cartoon-like images appear to be paintings which have been scanned and digitised.









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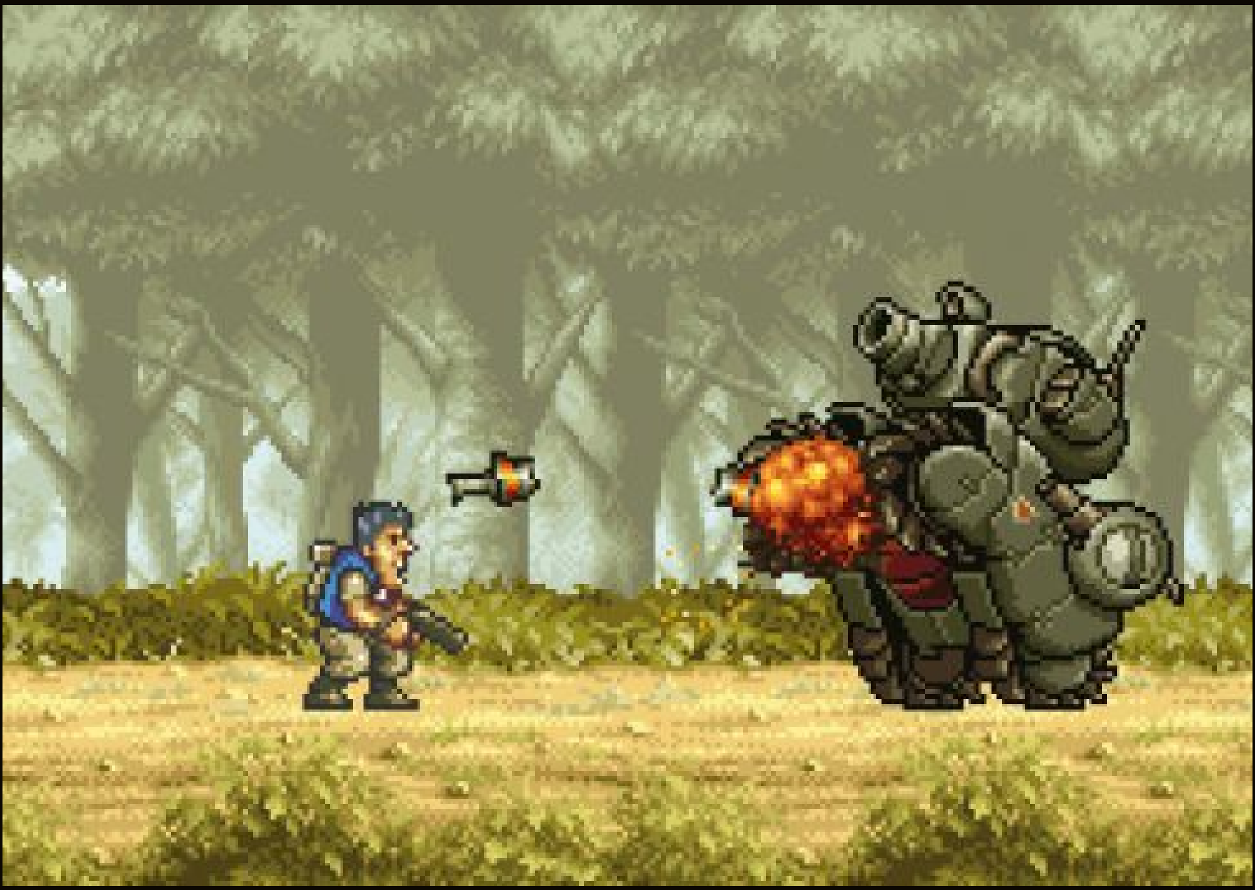
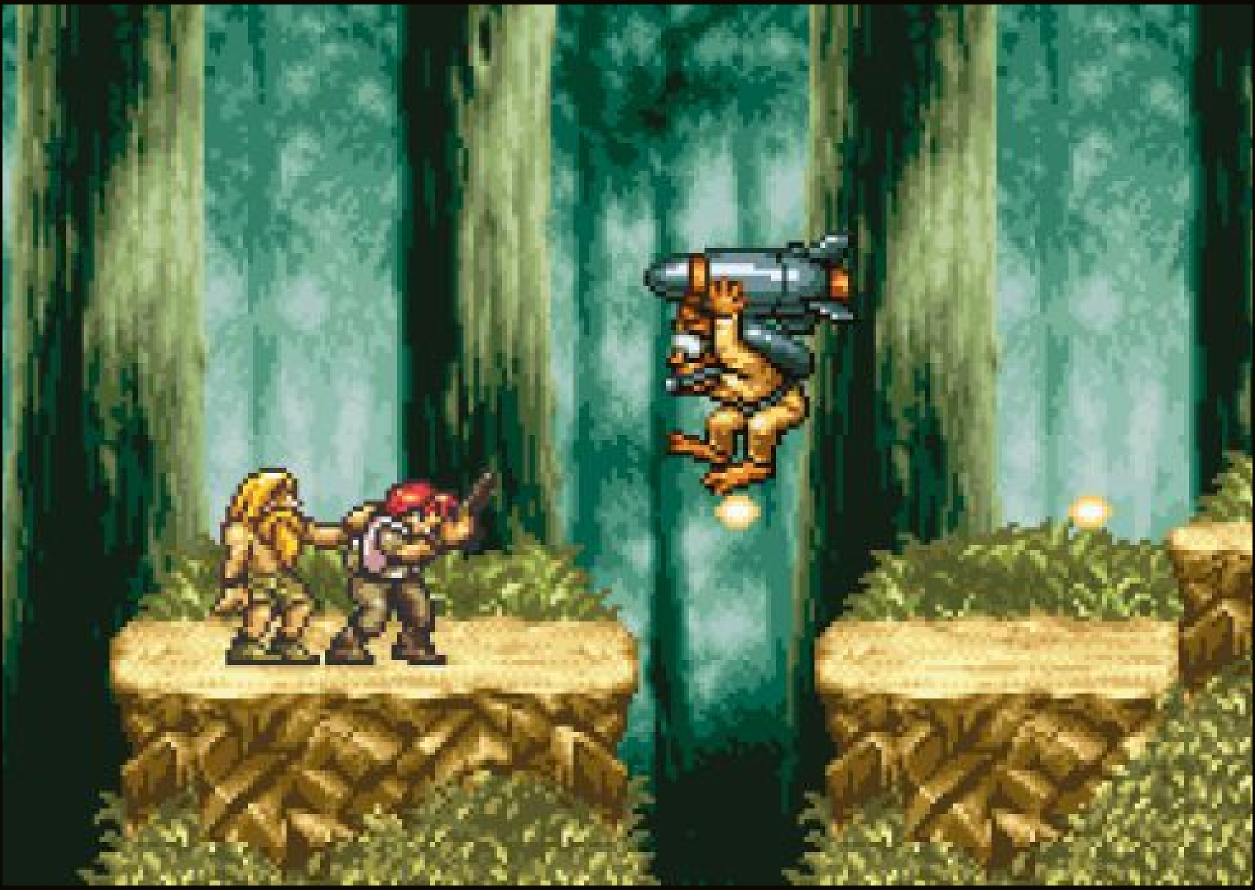
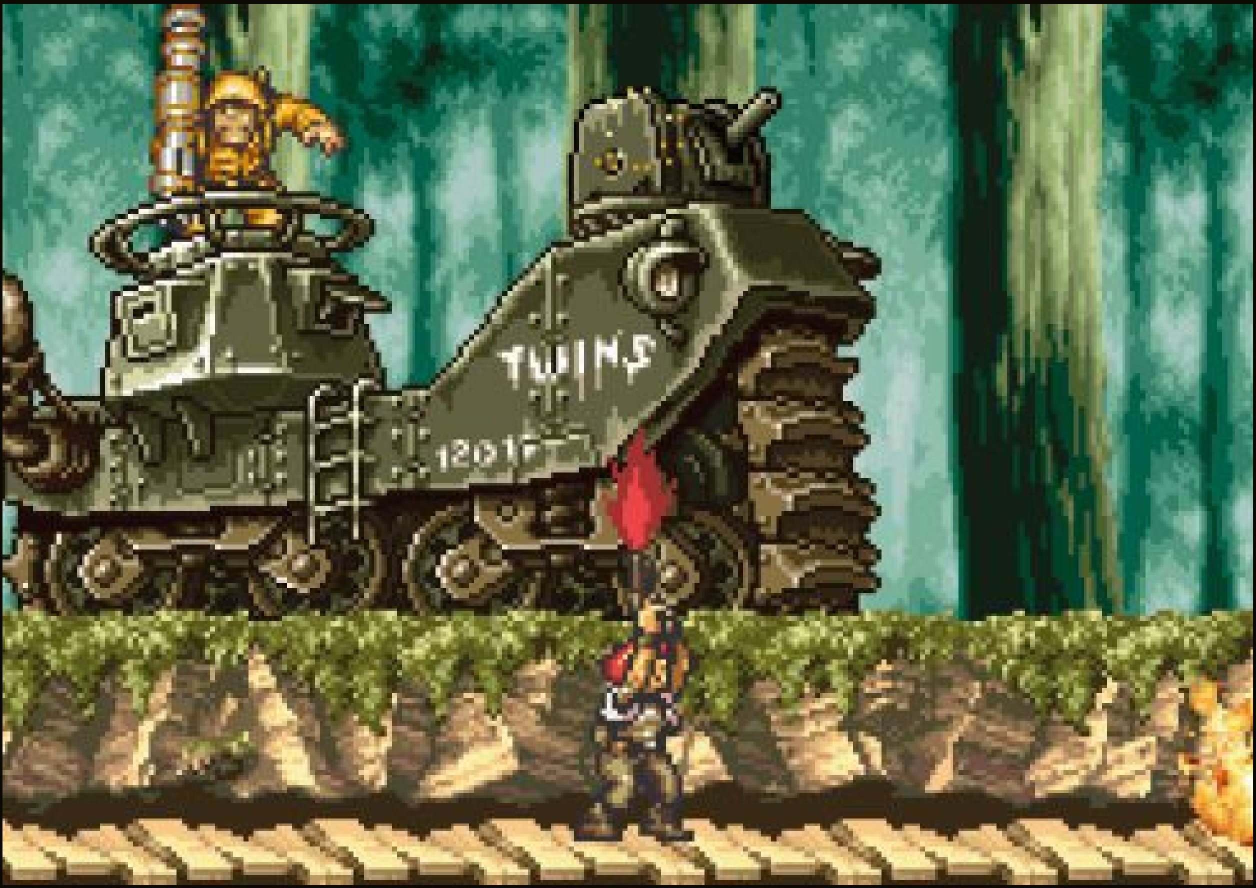


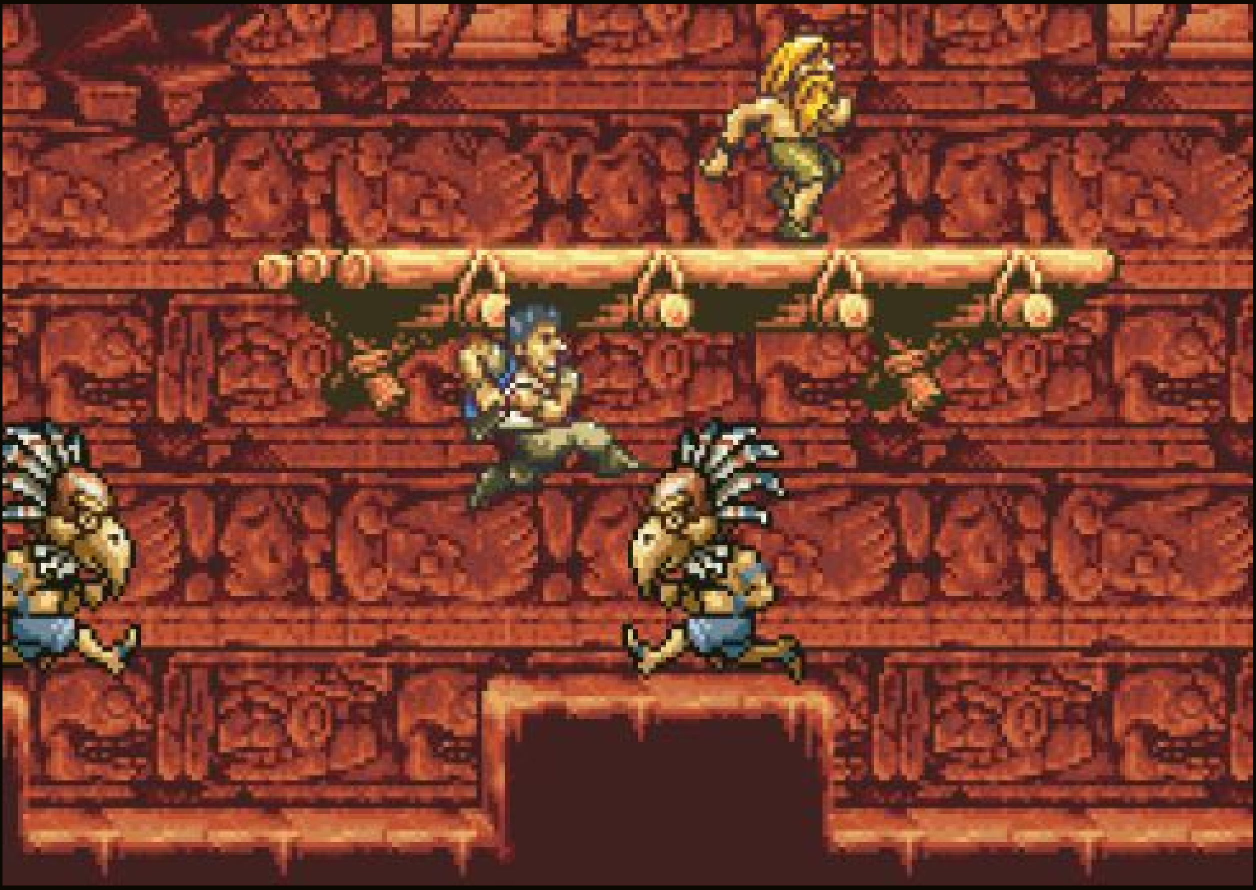
Very similar to the Mission 1 boss in *Metal Slug 5*, the Formor is an oversized SV-001 tank that attempts to crush you with its tracks.



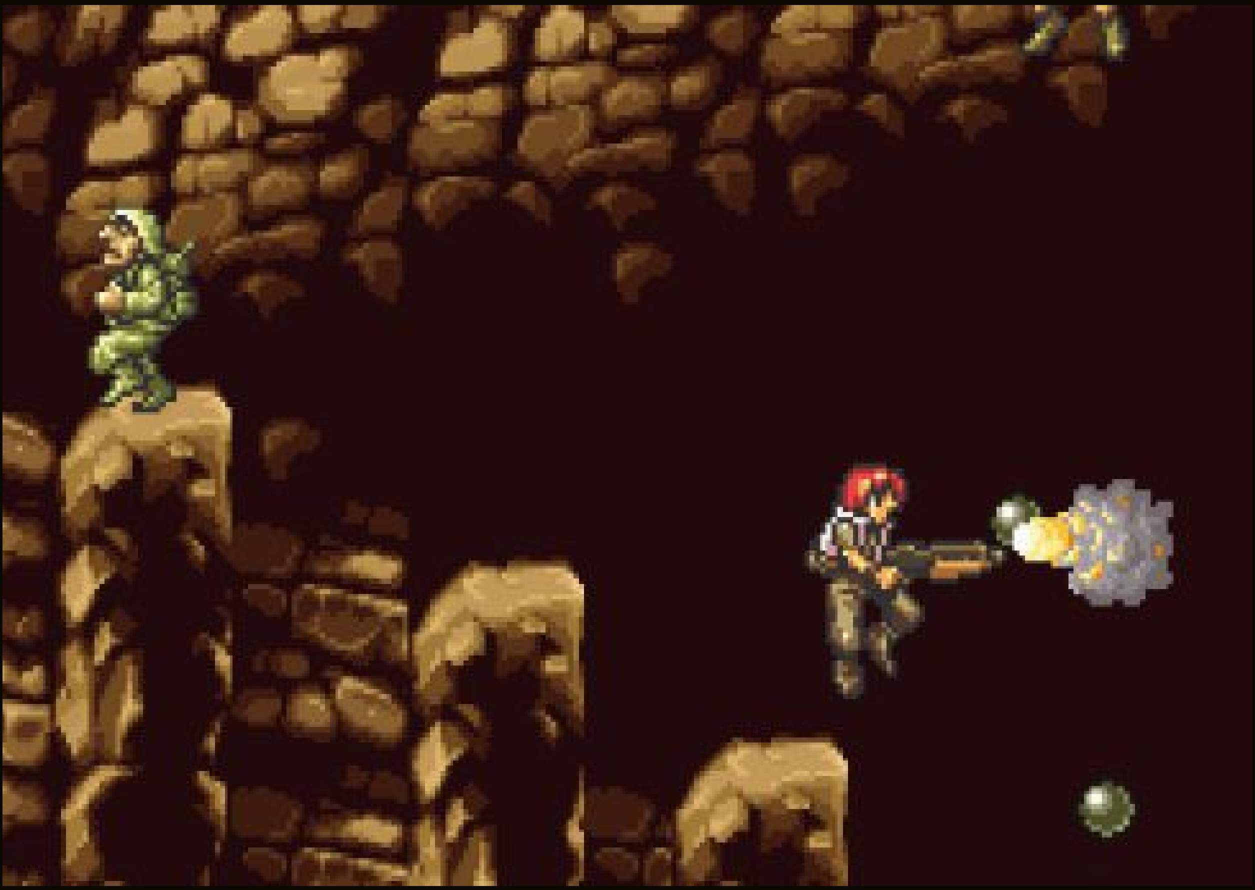
Not seen since the early *Metal Slug* games, the Rocket Divers suddenly leap from shallow water, clad in full scuba gear. They then attempt to throw a rocket in your direction.



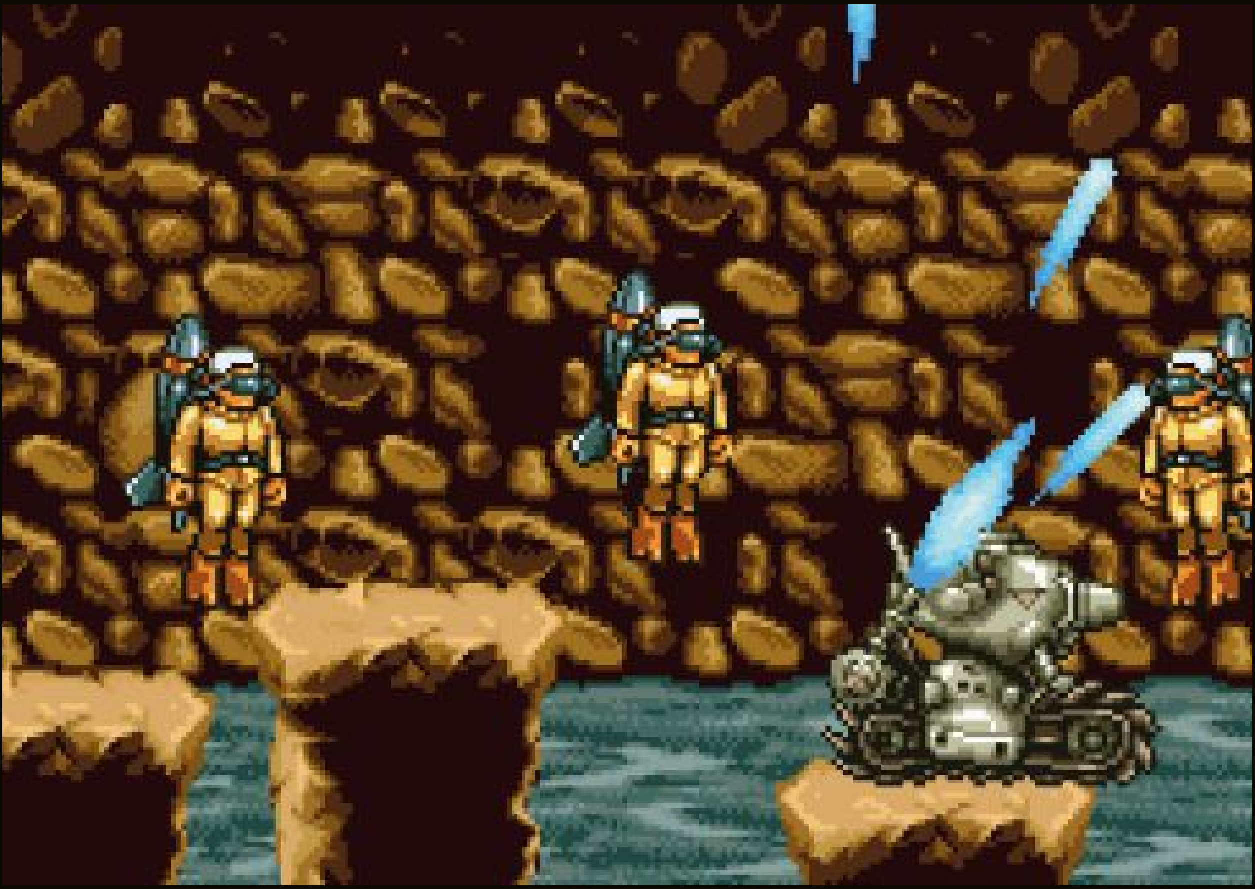
The Mission 2 boss, Emain Macha, is actually a pair of heavy tanks. They humorously have ‘TWINS’ spray-painted on their sides; the only distinguishable difference between them is their slight colour variance.



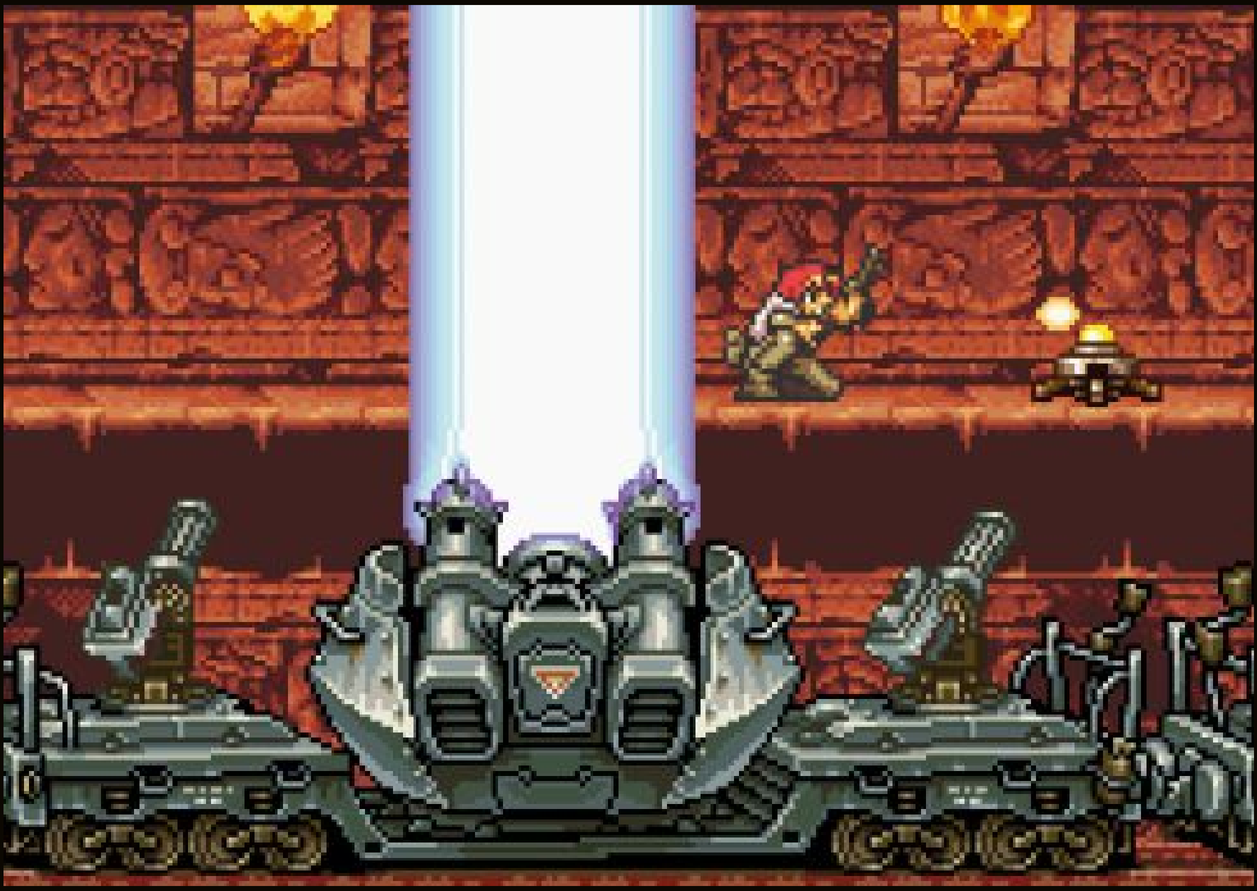
Last seen in *Metal Slug 5*, the Native enemies reappear in *Metal Slug Advance*, this time wearing sinister bird masks. Be especially wary of the Natives carrying a tomahawk.



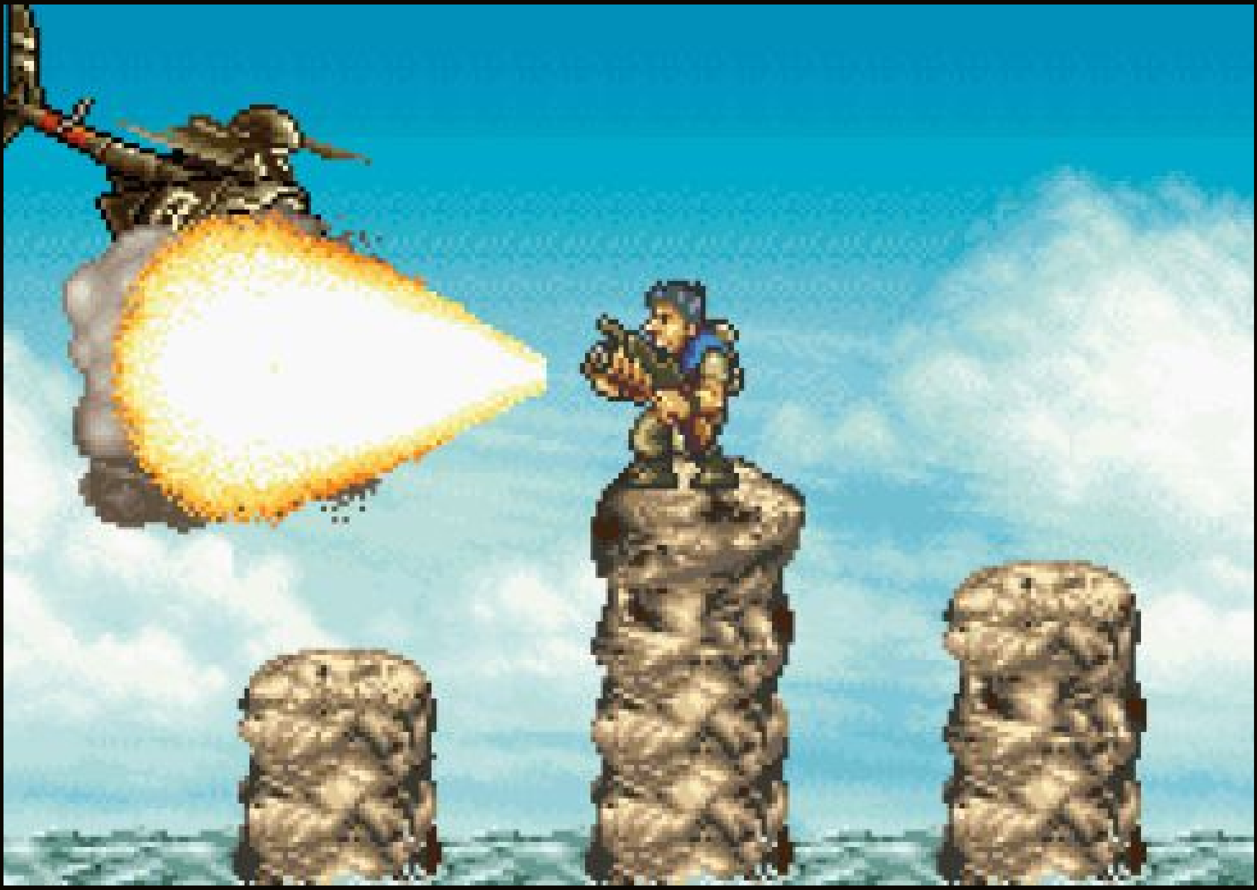
Metal Slug Advance sees the return of secondary weapon, the Drop Shot. This powerful gun is unique as it emits bouncing landmines, making it really useful in certain scenarios.



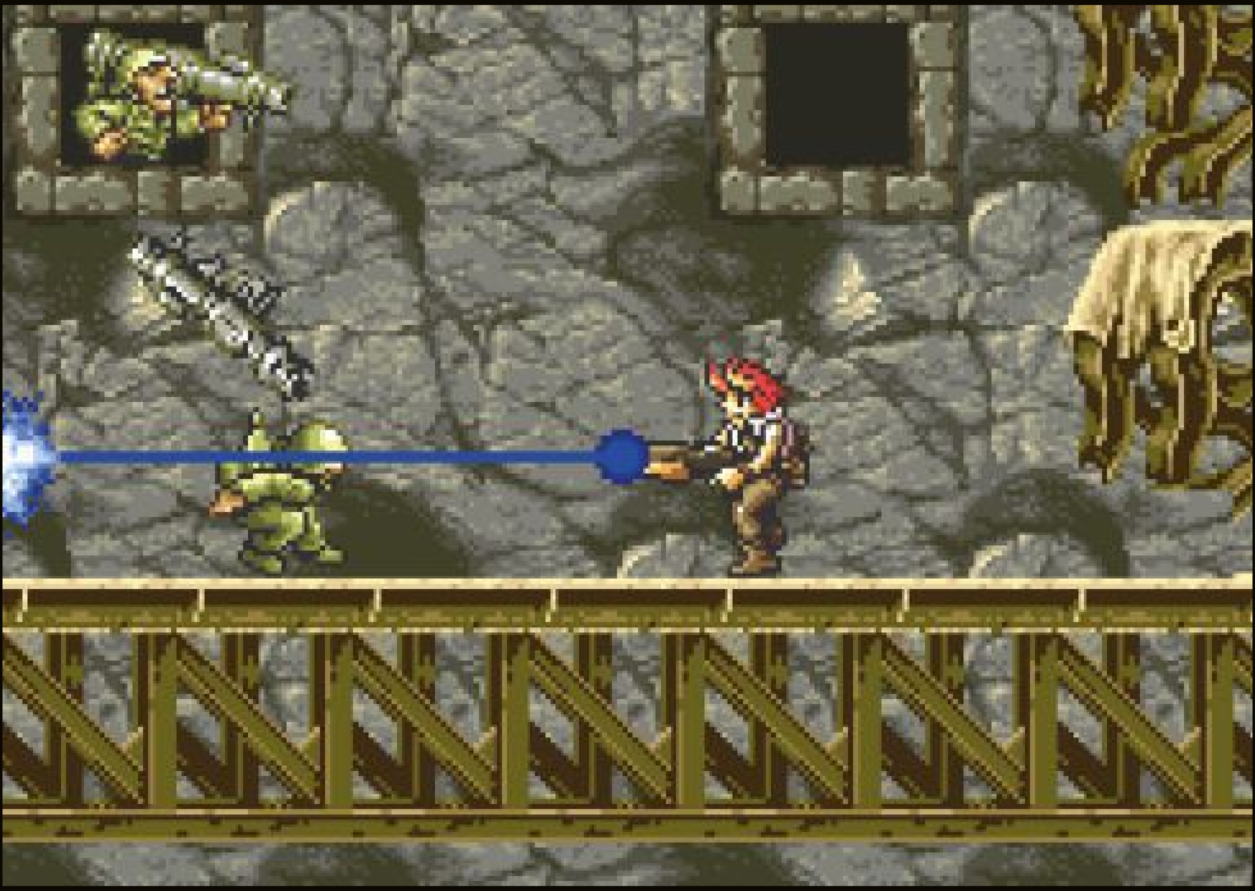
A Metal Slug mainstay, the SV-001 is always the best option for blitzing through enemies. Collecting the Thruster+ card unlocks the SV-001 Type-R, which cannot jump as high but has reverse-firing Vulcans and a rather fetching gold paint job.



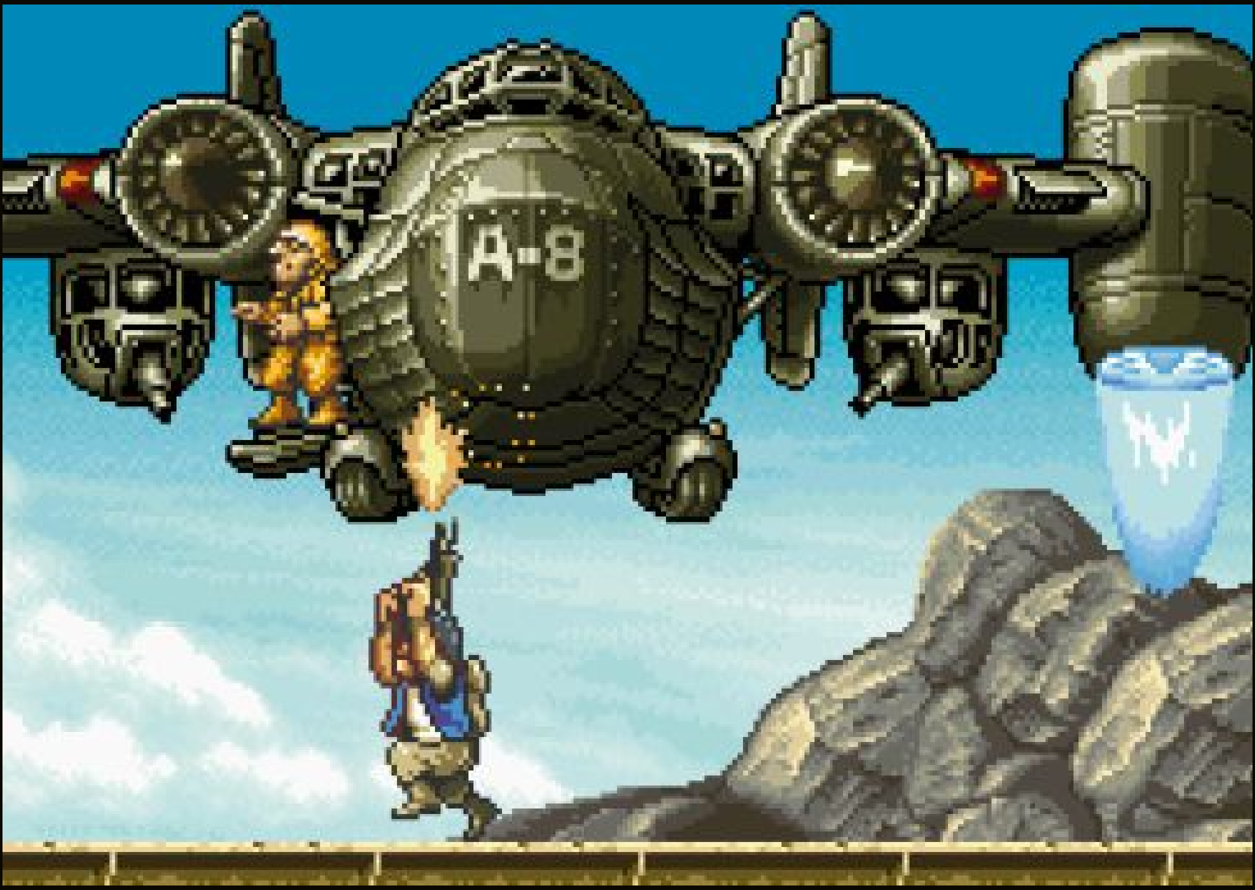
Clearly inspired by the Tani Oh from the original *Metal Slug*, the Kaladgolg launches a barrage of attacks at the player, such as land mines, Gatling guns and an enormous laser cannon.



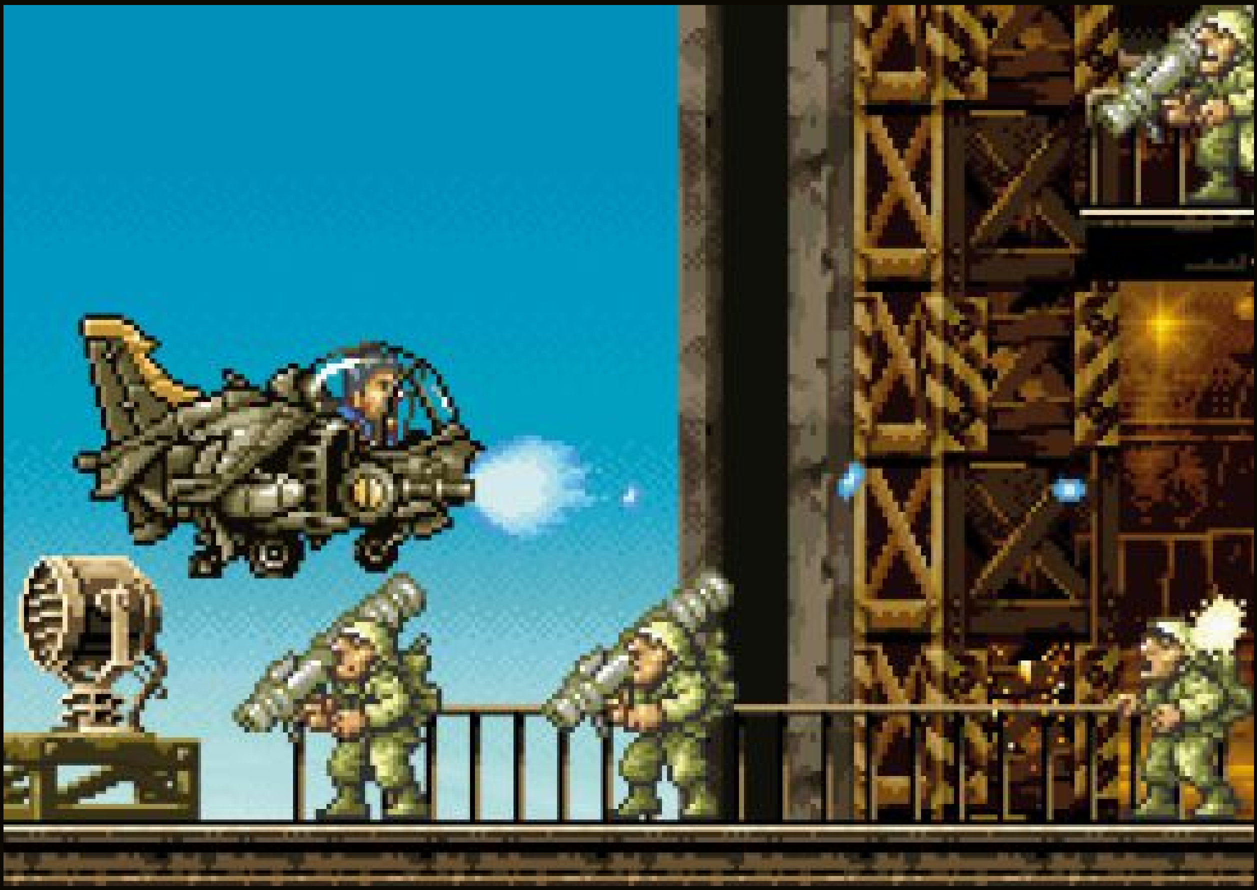
Metal Slug Advance features a few more platforming sections when compared with previous instalments, during which a single wrong jump sees you fall in the water with the loss of a life.



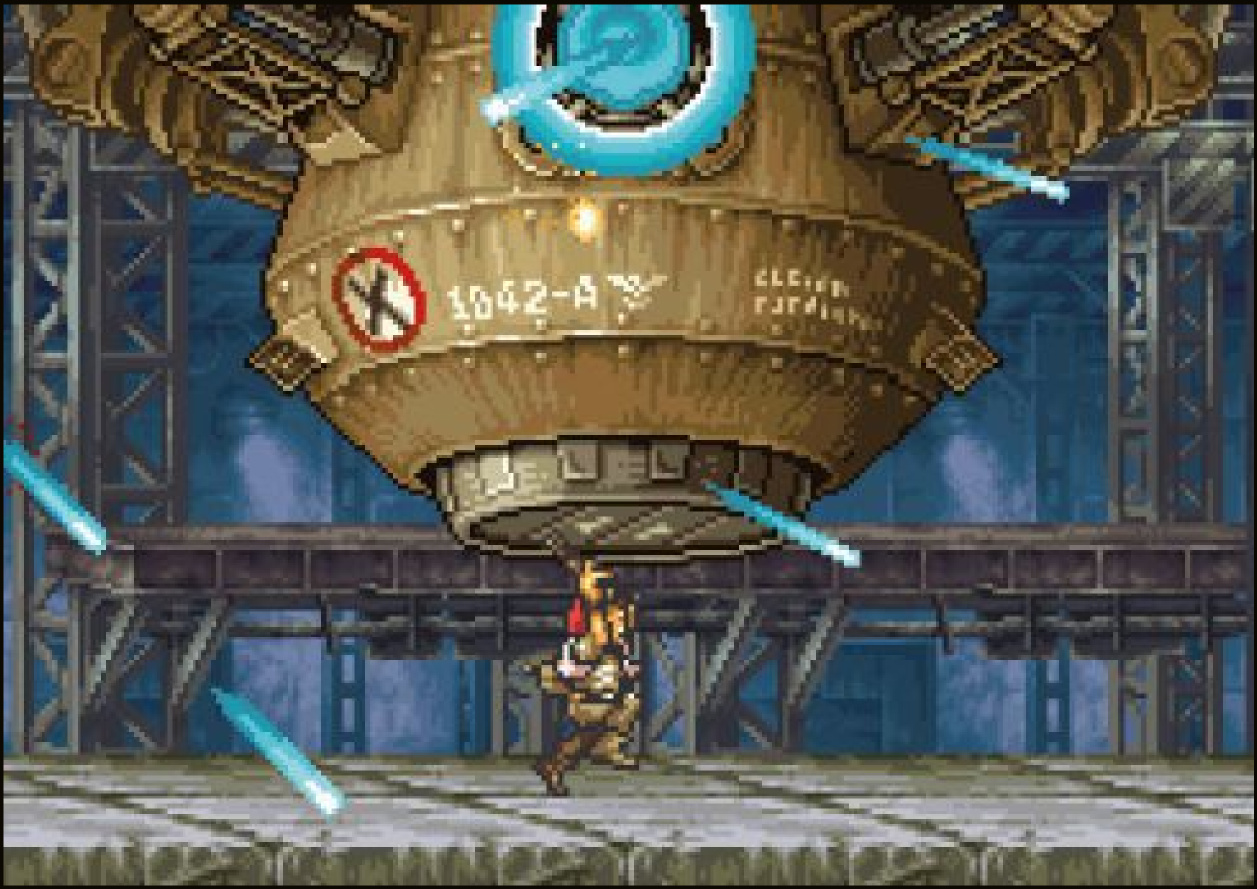
The Laser Gun is a powerful weapon and was first seen in *Metal Slug 2*. Sadly, *Metal Slug Advance* omits all blood and gory explosions of past games, so it doesn't have the same level of visceral satisfaction when deployed.



The Keesi III – the third Keesi to appear in the Metal Slug series – is the Mission 4 boss. Be careful of its special attack, which involves opening the hatch at the front and lobbing a huge missile in your general direction.

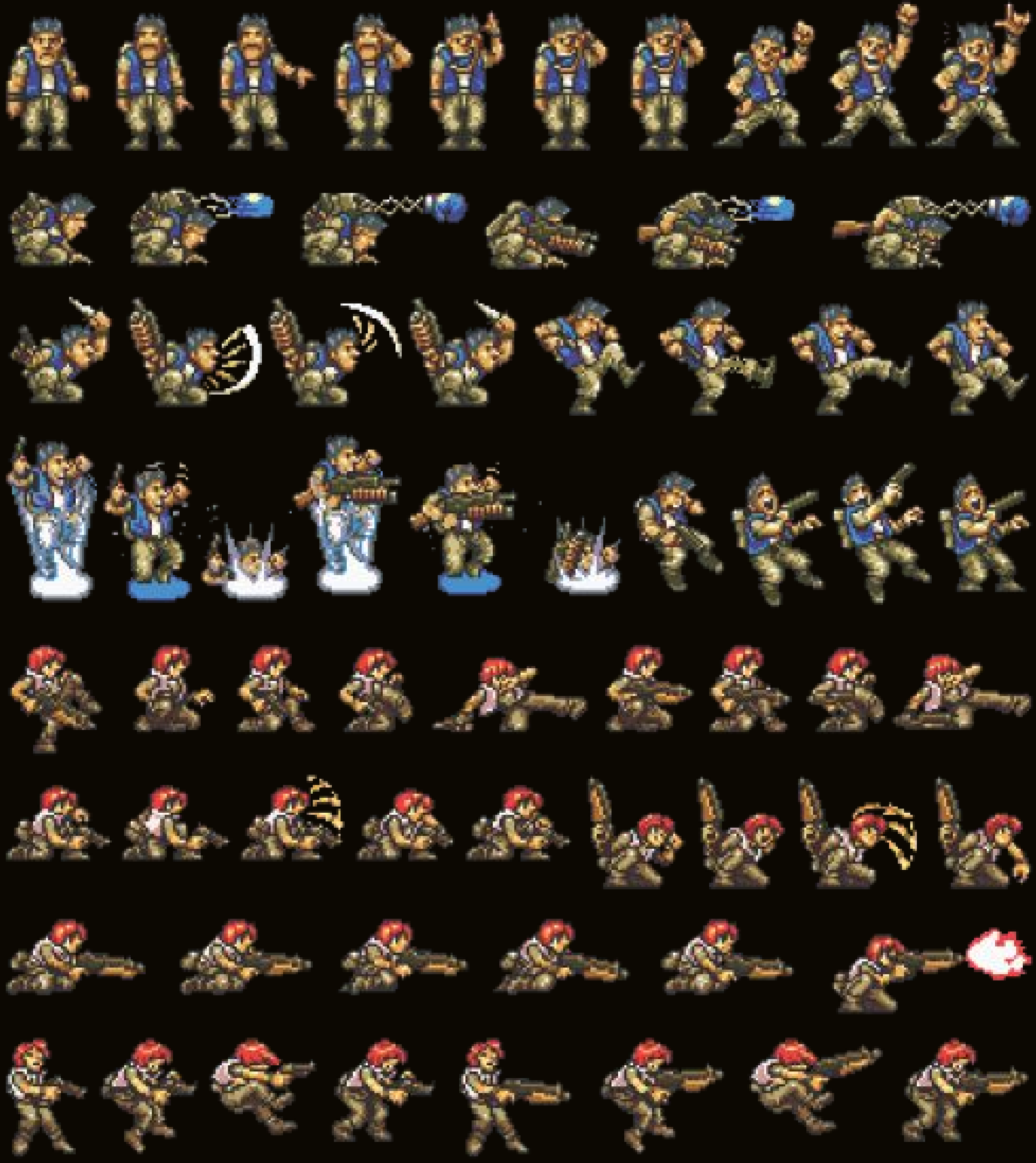


The Final Mission sees you start in the Slug Flyer; you'll need to take out various Rebel planes, helicopters and soldiers before you can enter the hangar for the final boss battle.

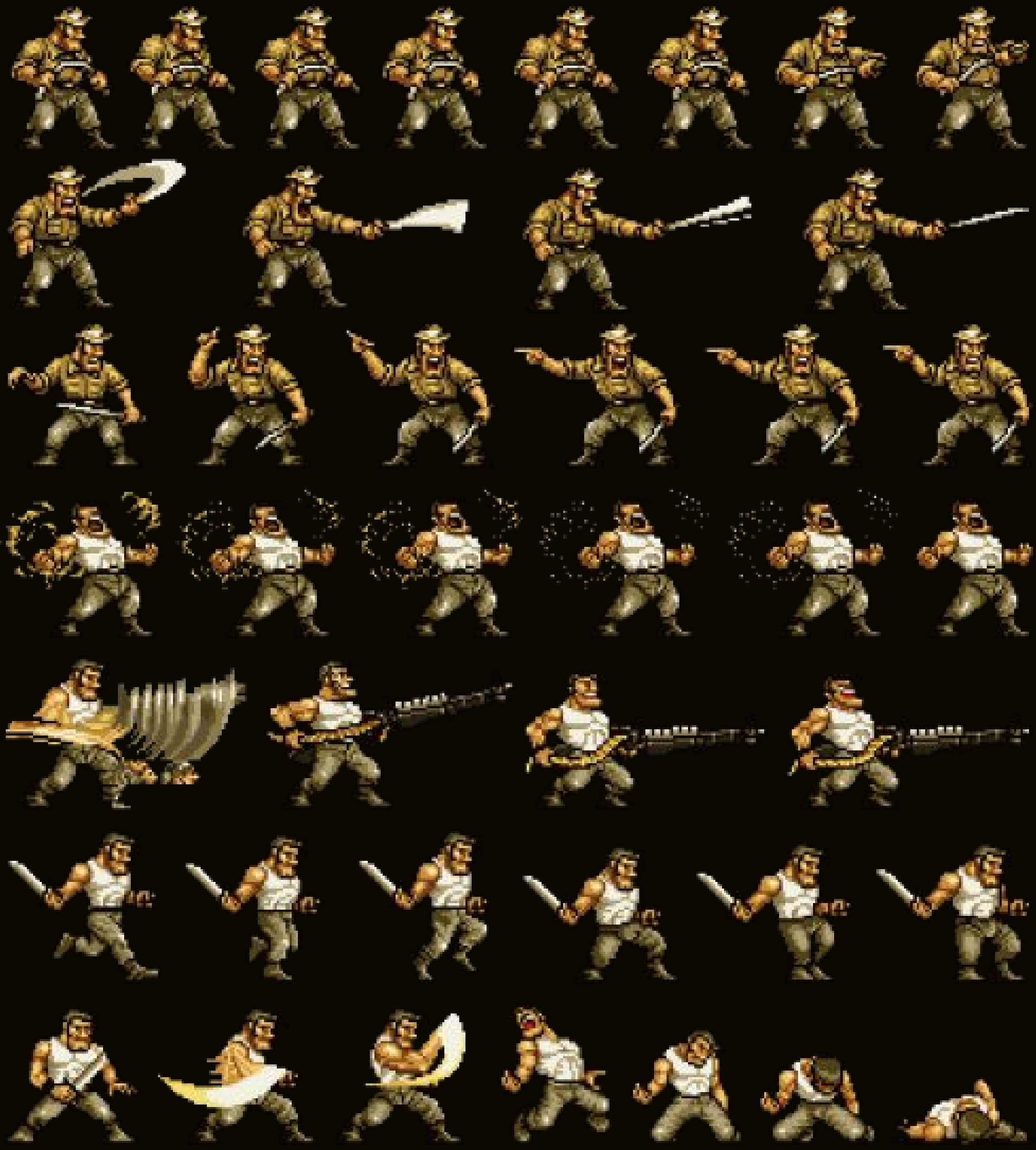


The final boss in *Metal Slug Advance* is called Cabracan. It's a big mechanical structure that fires lasers, releases droids and has the ability to cause an earthquake, destroying nearby platforms. Its weak spot is the flashing red eye; subtle, right?

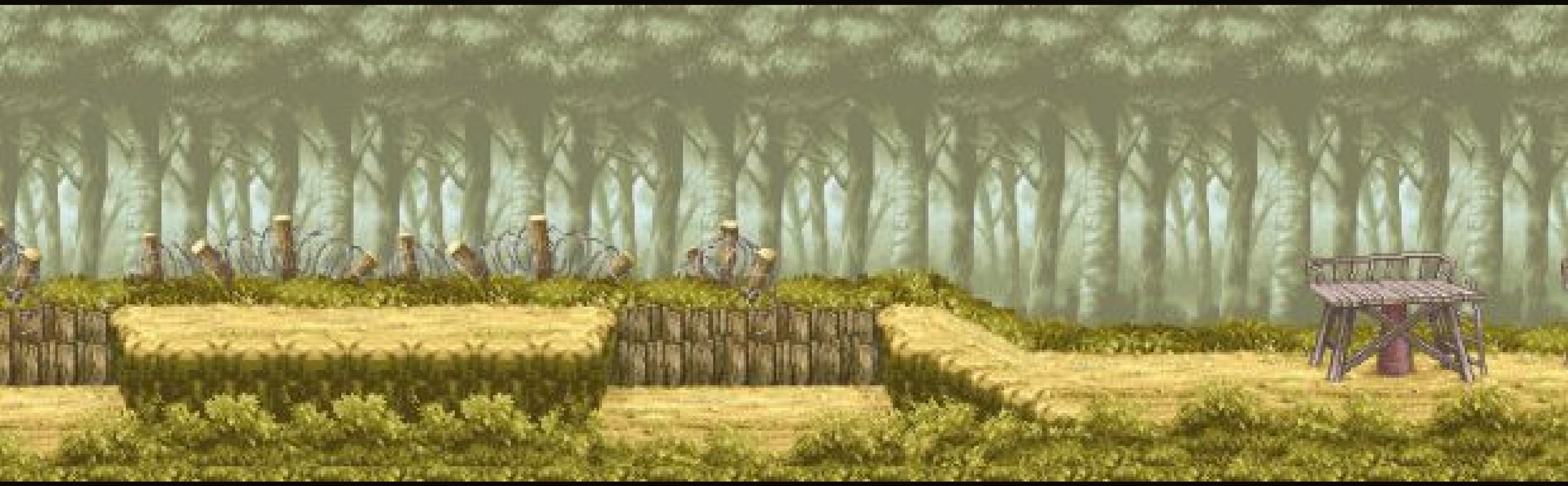
Sprites for the new characters Walter and Tyra. Apart from some subtle graphical changes and colour alterations, these are based on existing sprite sets with obvious modifications.



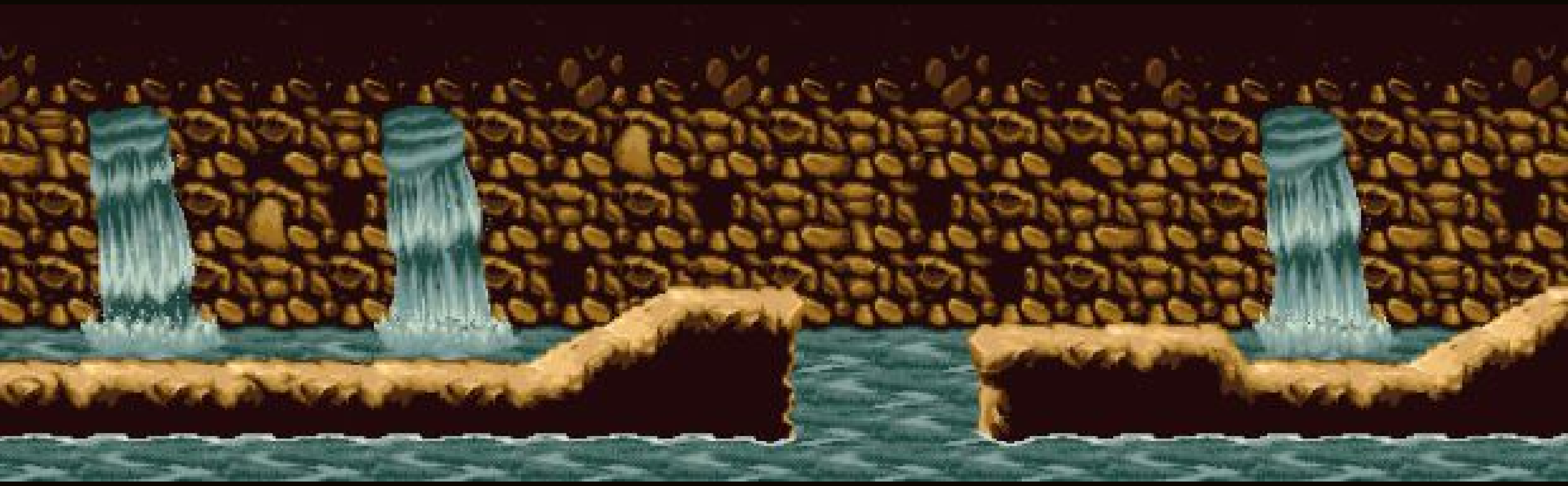
The son of Allen O'Neil, Allen Jr. makes his debut in *Metal Slug Advance* as a boss. He shares many frames of animation with his father, the key differences being that he doesn't turn red when damaged and you cannot take his gun once he is defeated.



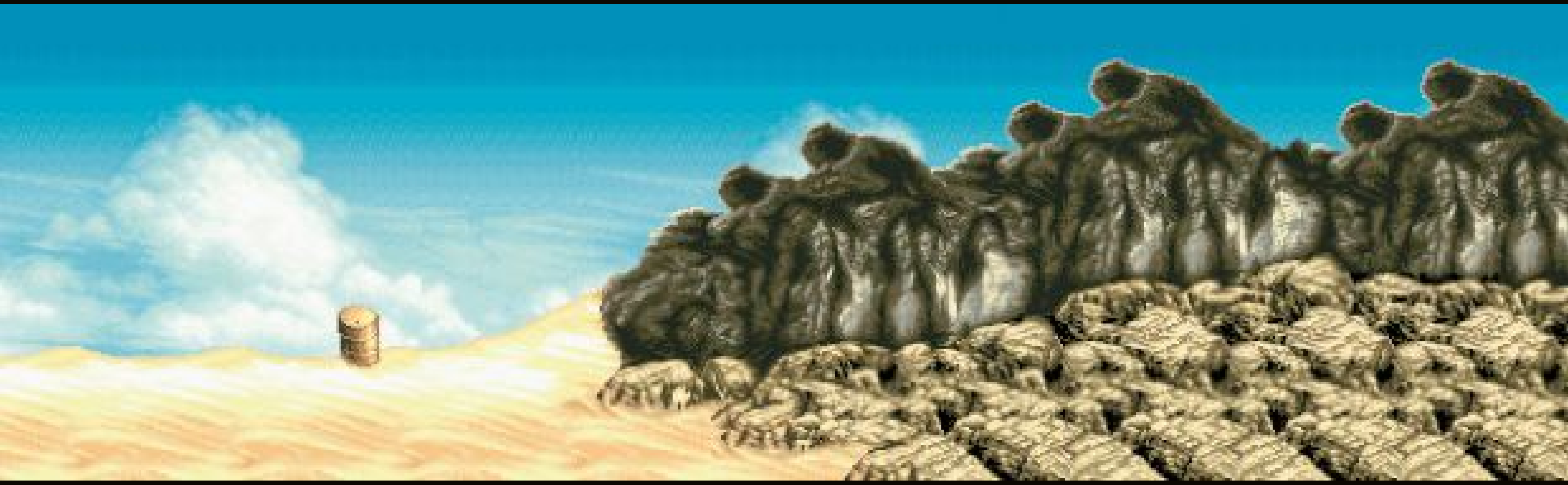
Although the weaker hardware of the Game Boy Advance means that the level backgrounds aren't as detailed as those seen on more powerful systems, they are still nicely drawn, boasting parallax scrolling and animated details.



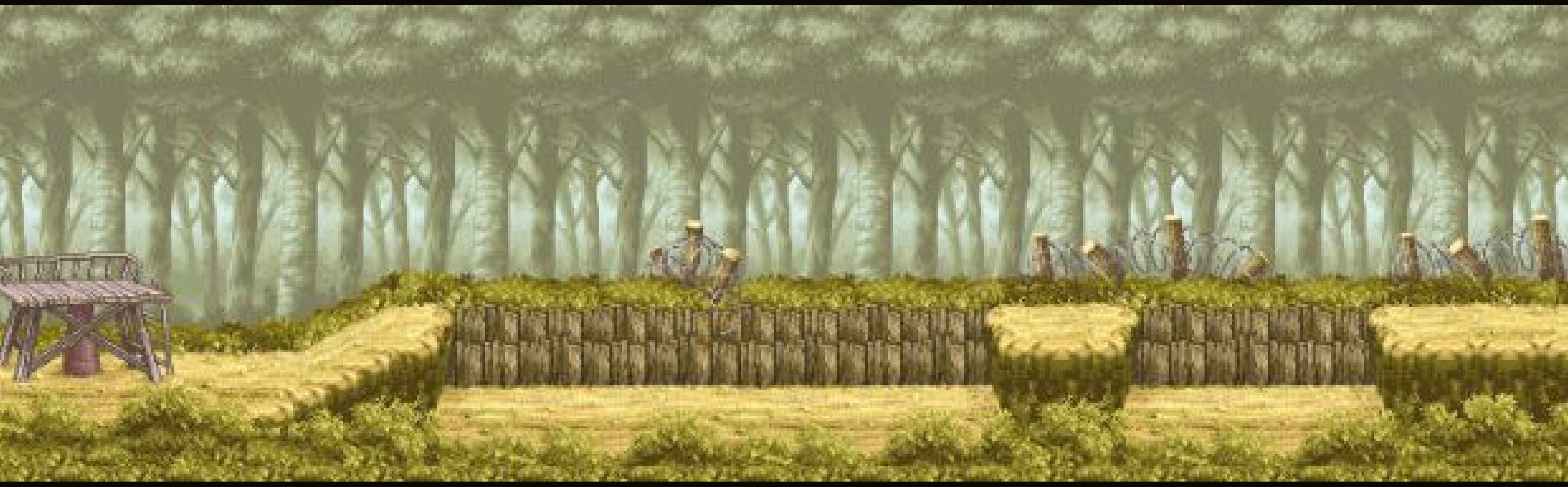
Mission 1

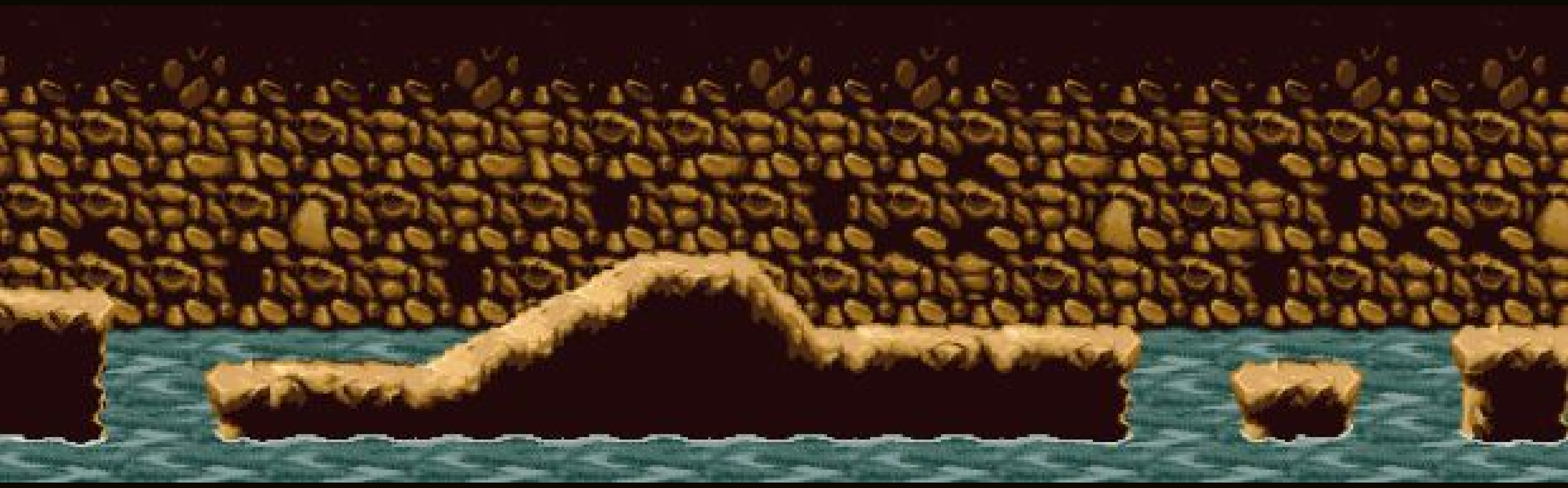


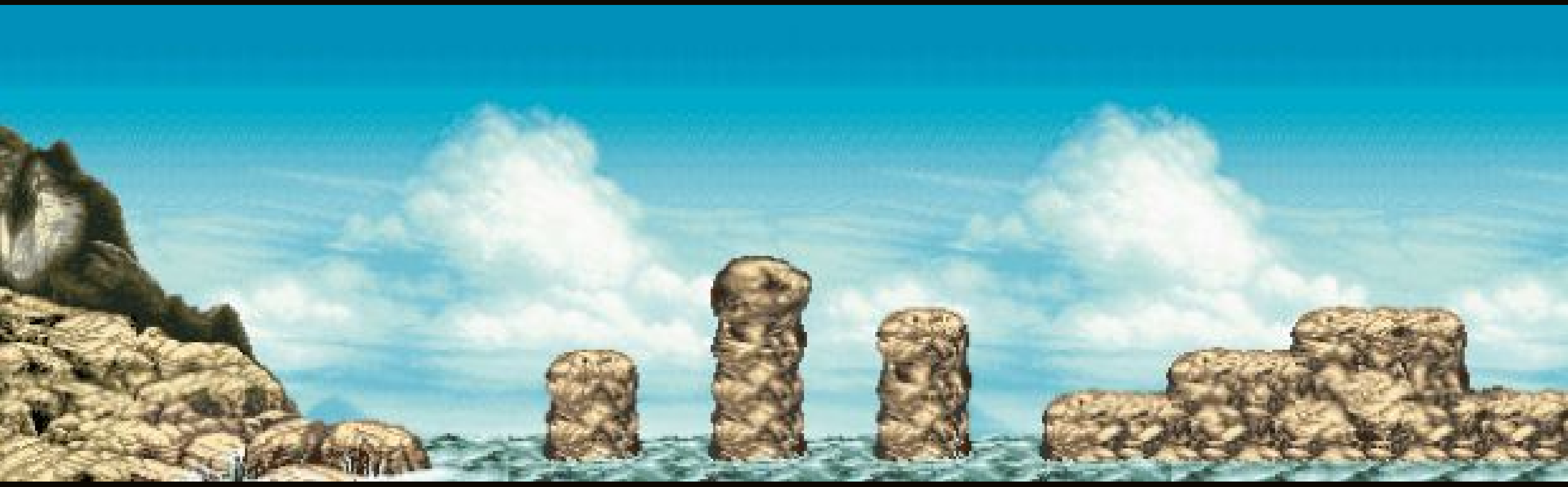
Mission 3



Mission 4







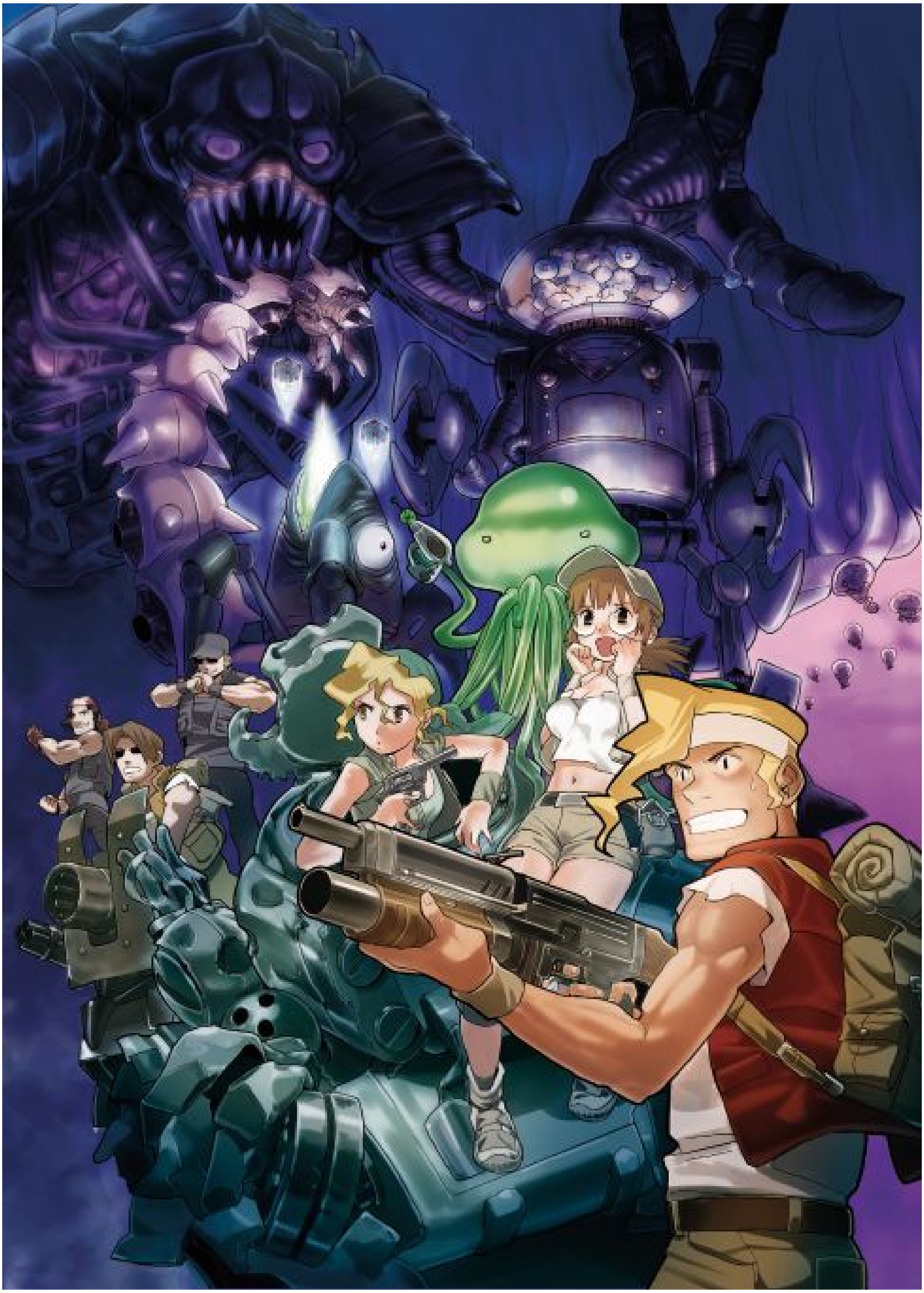
First released: 2006 / Players: 2 / Developed by: SNK / Published by: SNK and SEGA

METAL
SLUG
6

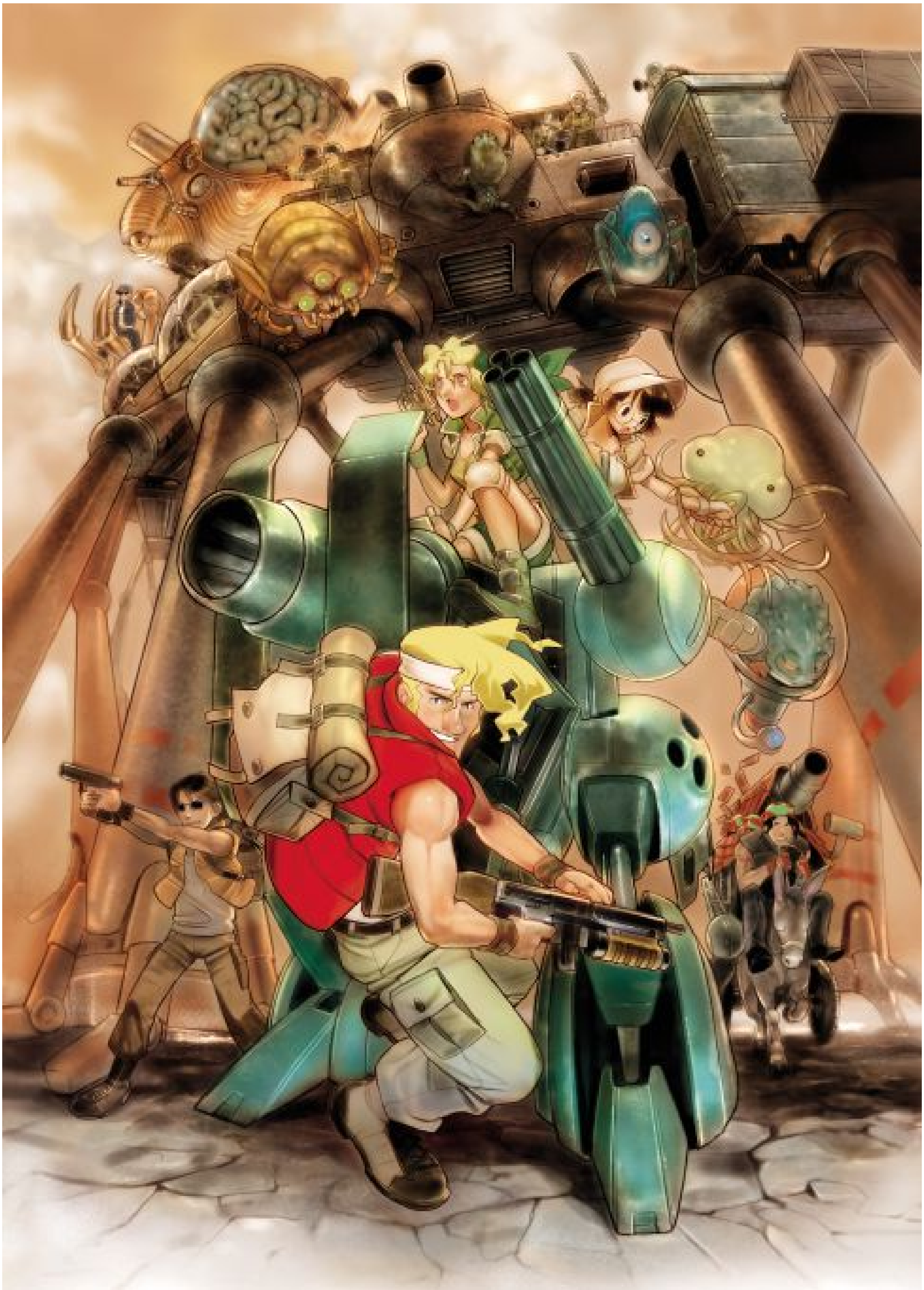
ARC PS2 PS3

The first mainline entry in the series to be developed on a platform other than the NEOGEO MVS and AES hardware, *Metal Slug 6* was powered by the Sammy Atomiswave arcade system and marked ten years of the franchise. While it stripped away some elements – the slide move introduced in the fifth game was removed, and there were no transformations – it gave players access to six different heroes, each with their own unique ability. These ranged from rapid-fire attacks to additional ammunition and devastating melee moves. Regulars Marco, Tarma, Fio and Eri were joined by Ralf and Clark, both of whom had previously appeared in both the Ikari Warriors and THE KING OF FIGHTERS series.

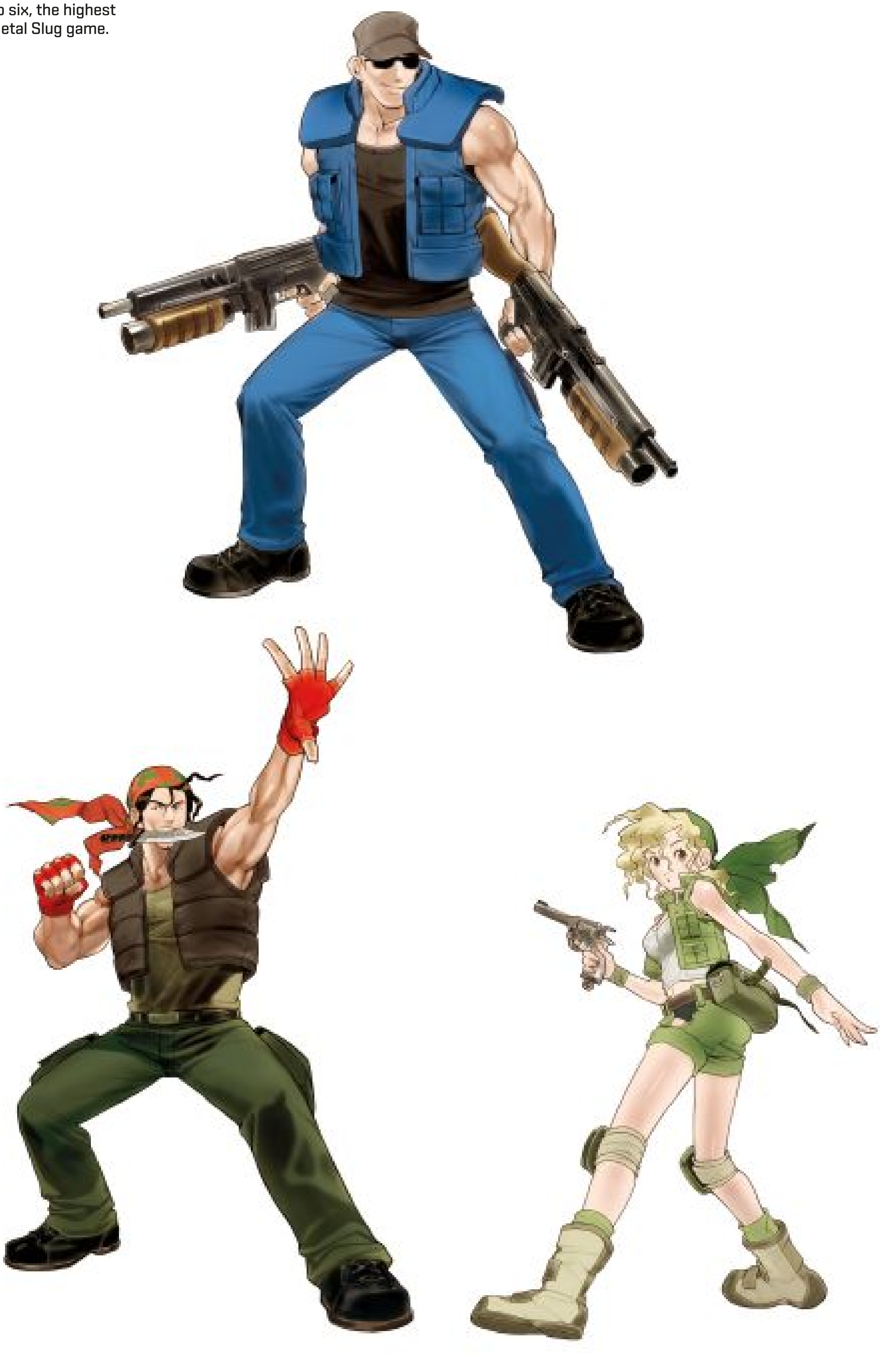
The Sony PlayStation 2 cover of *Metal Slug 6* is once again the work of SNK in-house artist TONKO. It's a rich collage of all the main characters, Slugs, enemies and various bosses seen in the game.

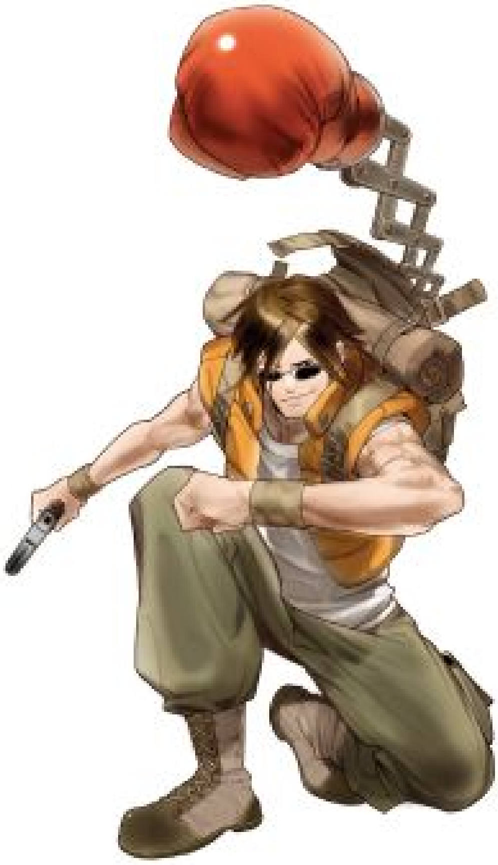


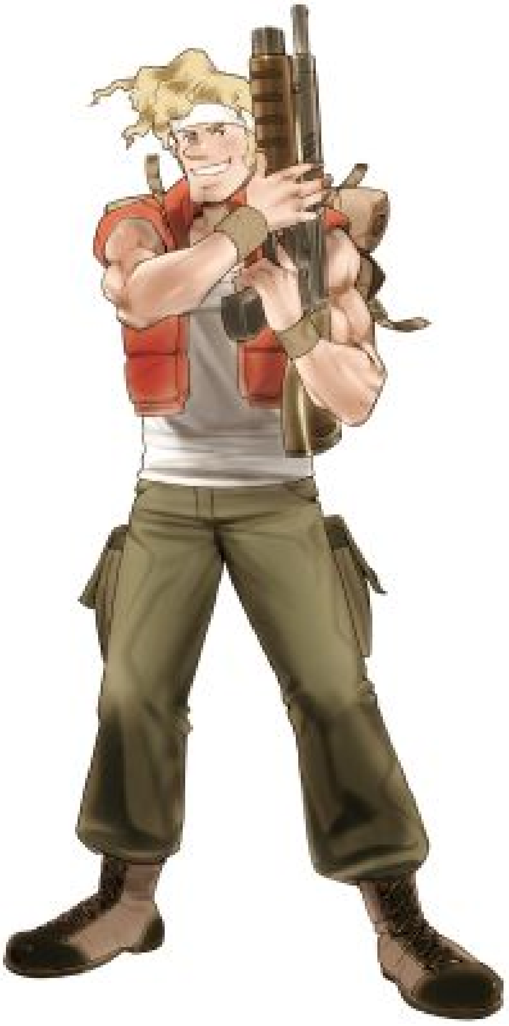
Much the same as the Sony PlayStation 2 box art, the arcade artwork uses a different colour palette but retains the concept of creating a collage showcasing the main characters and bosses. The Walking Locomotive can be seen towering over everyone, with your one-time enemy Rootmars lurking in the background.

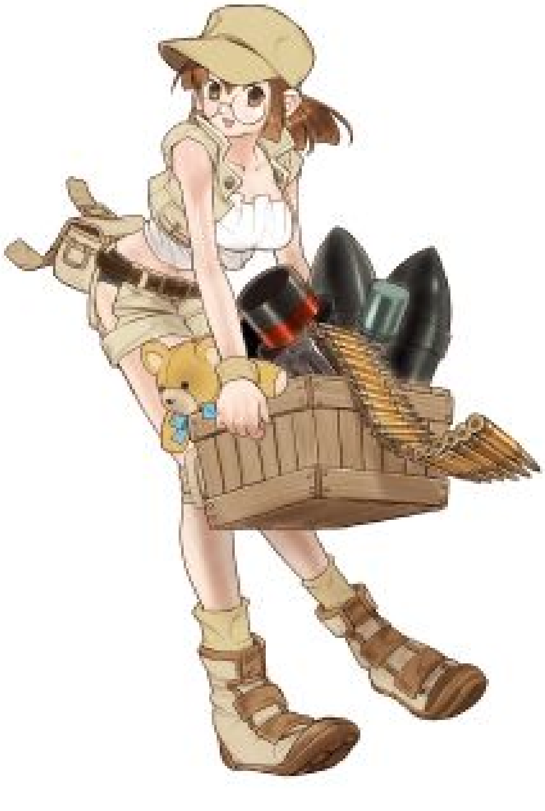


In *Metal Slug 6*, Marco Rossi, Tarma Roving, Eri Kasamoto and Fio Germi are joined by new guys Ralf Jones and Clark Still, famous for their appearances in *THE KING OF FIGHTERS* and *Ikari Warriors*. This took the number of playable characters up to six, the highest ever seen in a Metal Slug game.

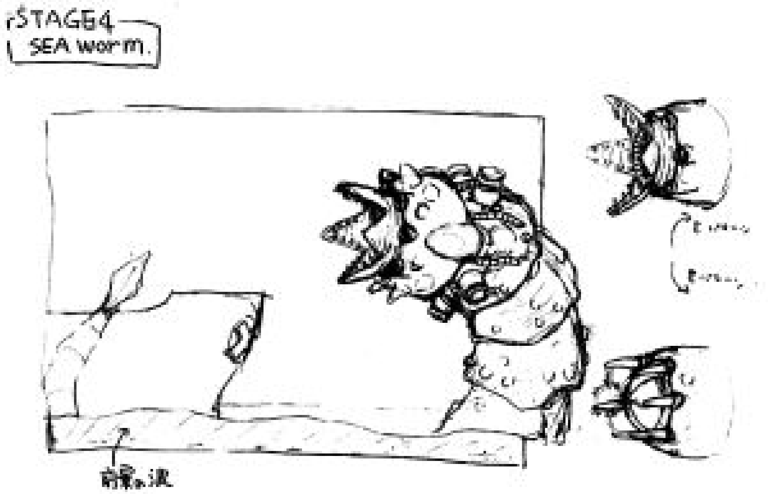


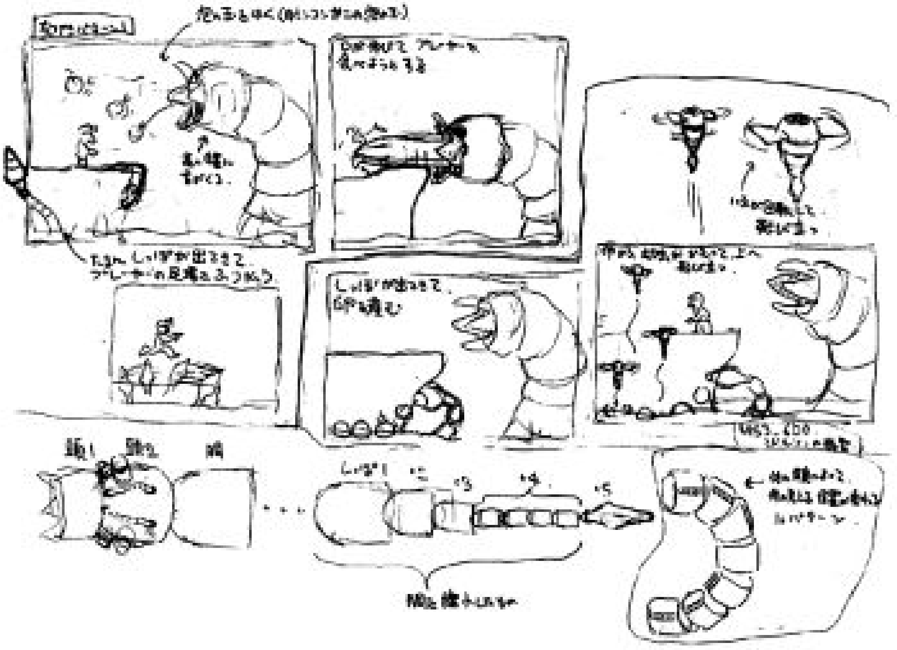




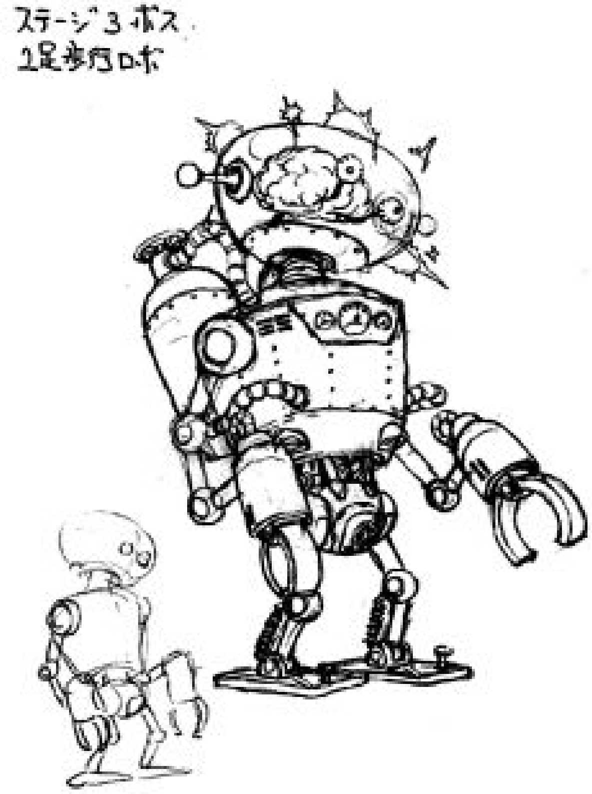


Although based in the sea and not in sand, the Sea Worm boss is similar in design to the famous Sandworms of Arrakis, as described in the legendary sci-fi novel *Dune* – they also look a little like the creatures from the movie *Tremors*. This Mission 4 boss has a deadly spinning attack.

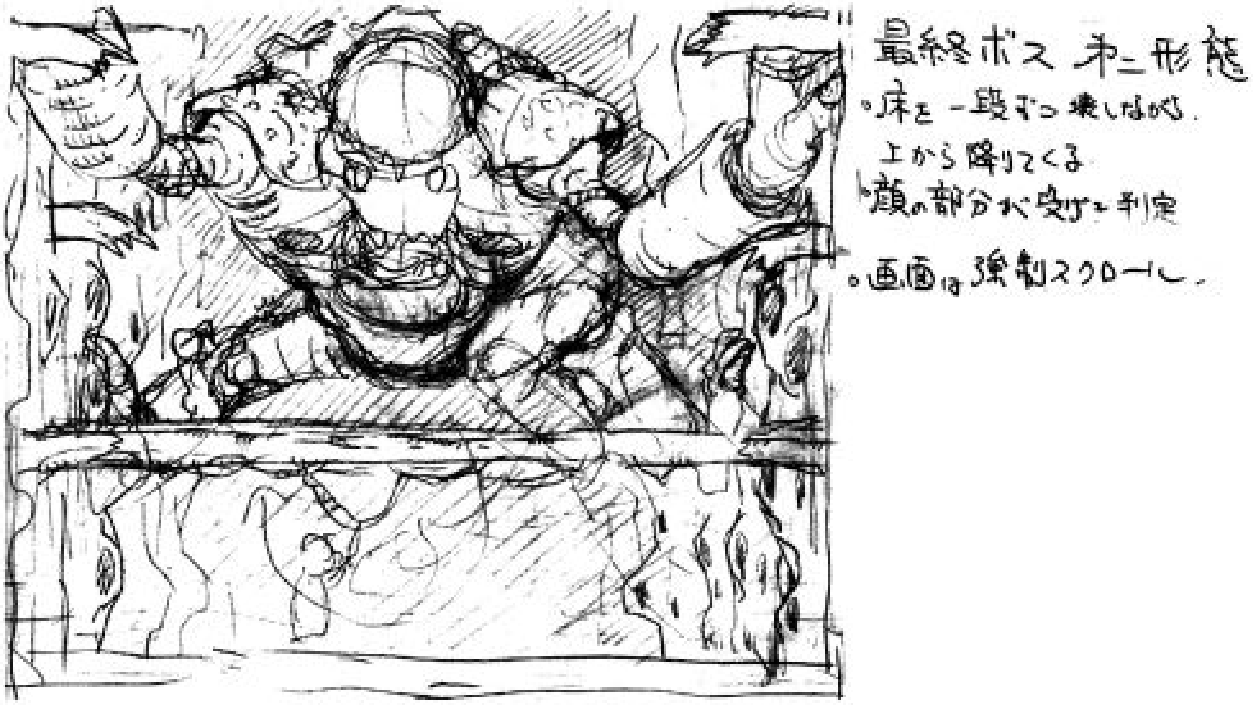

STAGE4
SEA worm.
前景の波



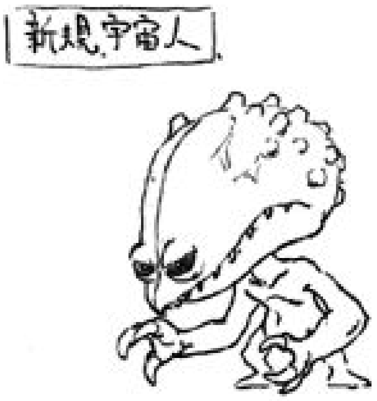
Reminiscent of the Huge Hermit boss battle from *Metal Slug 3*, the Brain Robot chases you through the sewers at the end of Mission 3. It's tricky to run and return fire at the same time whilst also avoiding his attacks, which include sending electric shocks through the water that can electrocute you.

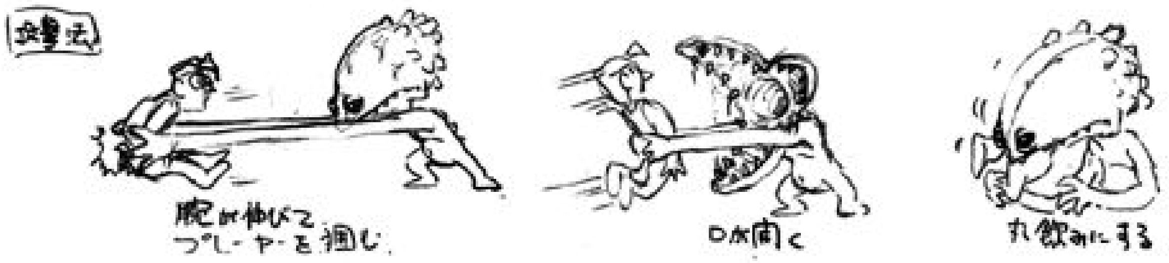

ステージ3ボス
2足歩行ロボ

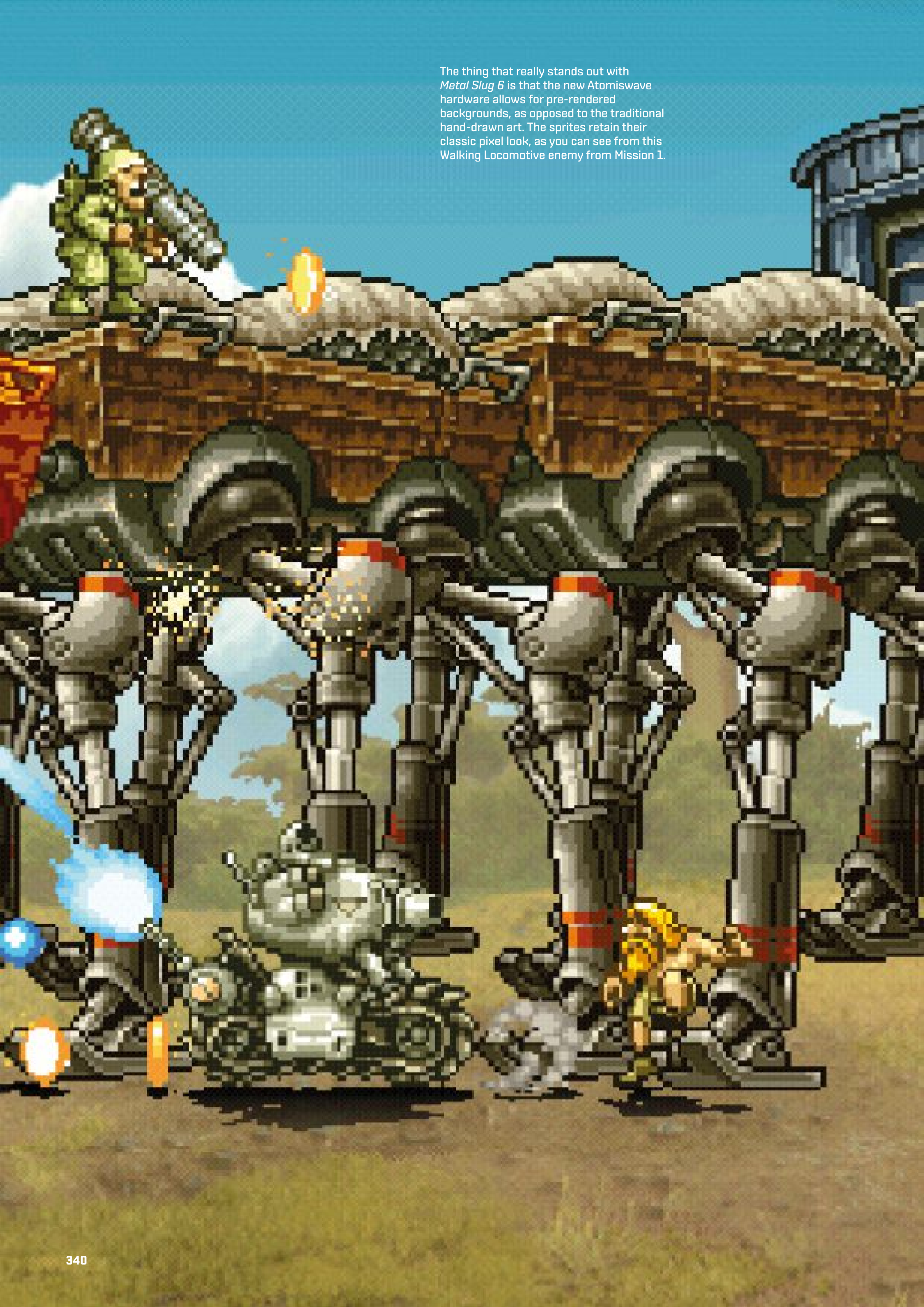
Concept art for the H. R. Giger-inspired Invader Queen, the final boss in *Metal Slug 6*. You start by shooting a gruesome sack of goo, but that's not the end by any means; the Queen then emerges from the sack and fills the entire screen, attacking you with a considerable number of energy blasts.


最終ボス 第二形態
・床を一段ずつ壊しながら、
上から降りてくる
顔の部分が受け判定
・画面は強制スクロール。

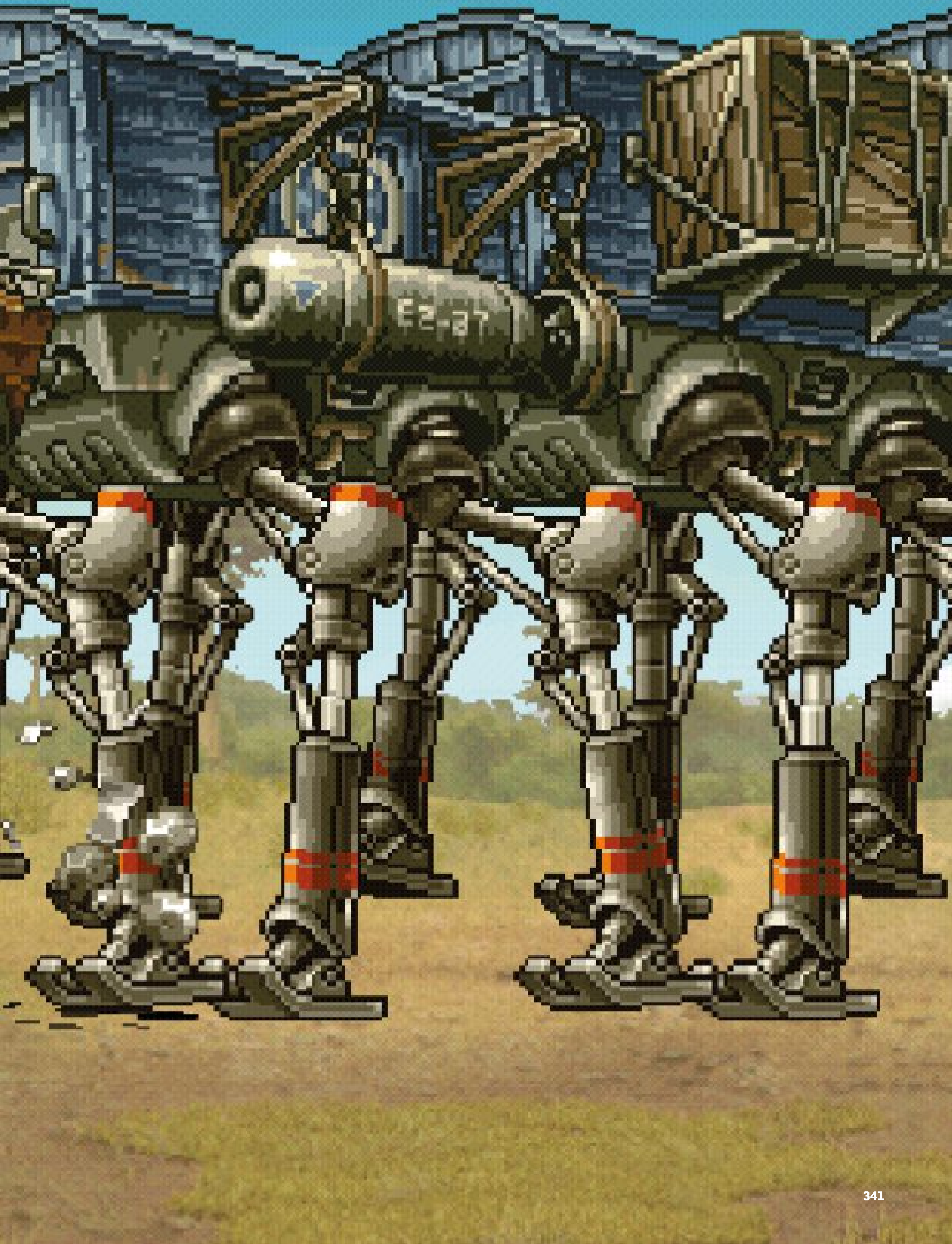
Early concept art showing a Drone Invader and its various proposed attacks – most of which went unused. In the final game, its key attack is a spin, which isn't depicted in these concept sketches.



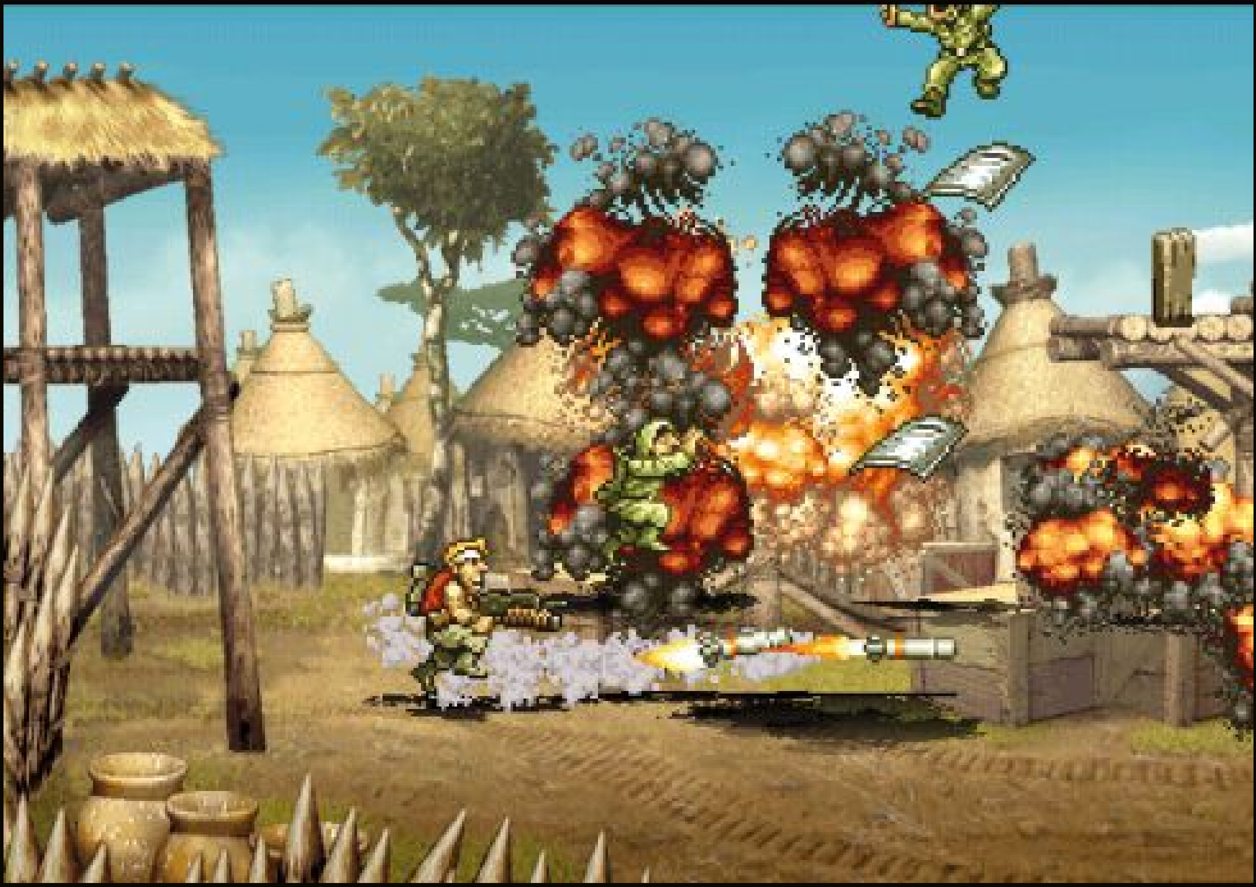

攻撃法
腕が伸びて
プレーヤーを掴む
口が開く
丸飲みにする



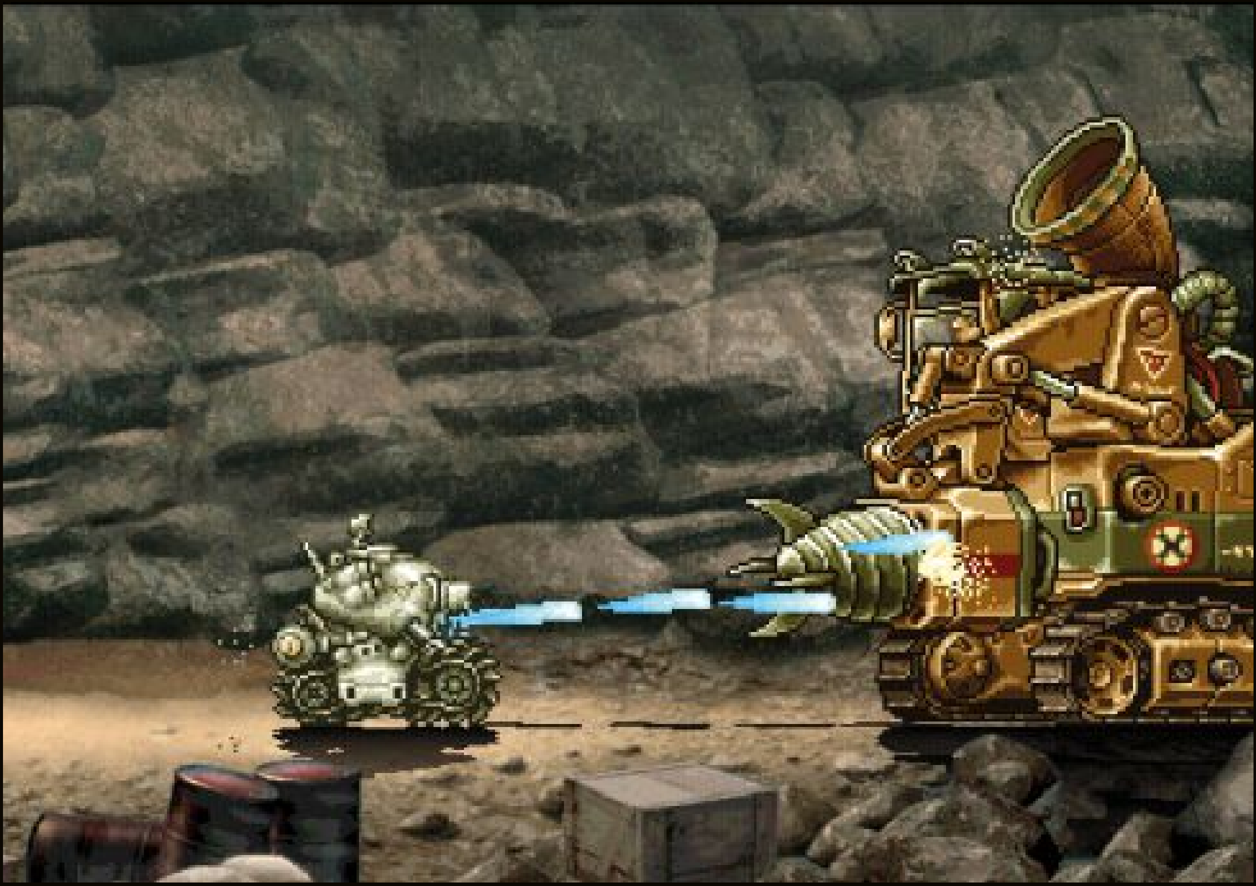
The thing that really stands out with *Metal Slug 6* is that the new Atomiswave hardware allows for pre-rendered backgrounds, as opposed to the traditional hand-drawn art. The sprites retain their classic pixel look, as you can see from this Walking Locomotive enemy from Mission 1.


Ez-87

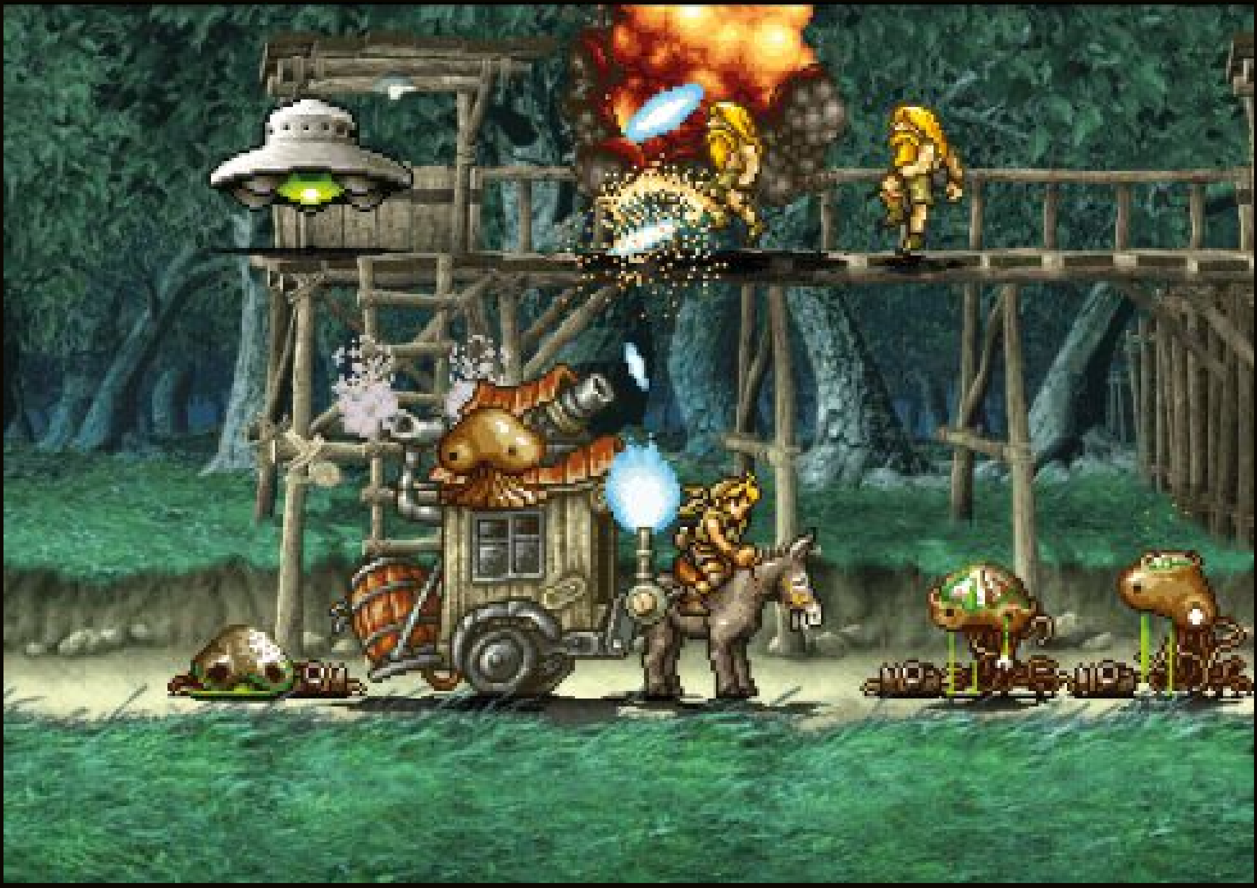
Another first in *Metal Slug 6* is the fact that each playable character has their own unique attributes. Marco, for example, has weapons that cause more damage than the others – something that comes in handy against the enemy bosses such as Mission 4's Sea Worm boss.



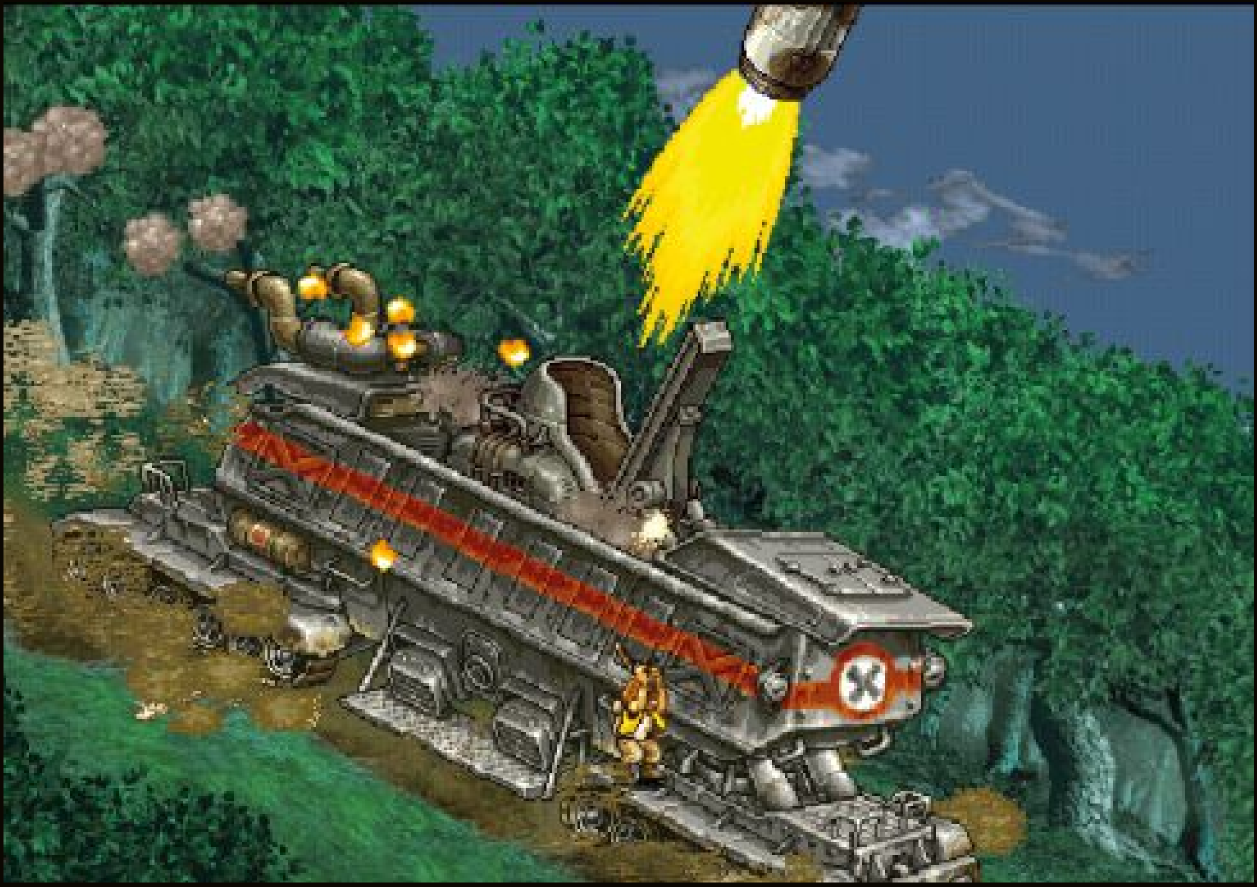
Another new addition to *Metal Slug 6* is that all objects now cast shadows onto the floor; this high-res effect does seem to jar with the low-resolution pixel sprites, though.



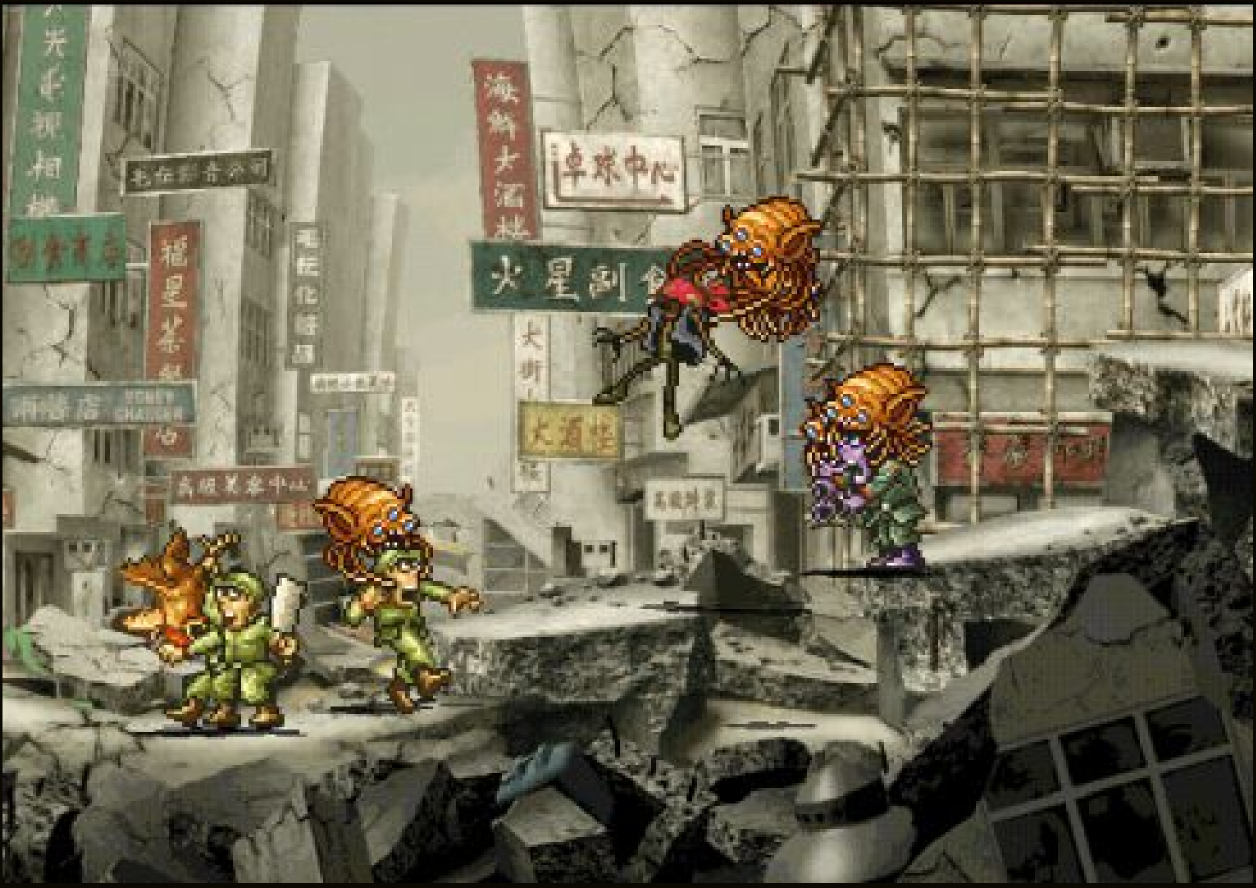
Reminiscent of the Drill Slug, the Mission 1 boss is called Bull Drill. It’s quite a pushover in easy mode, but in hard mode it uses its powerful drill to cause boulders to rain down on your character.



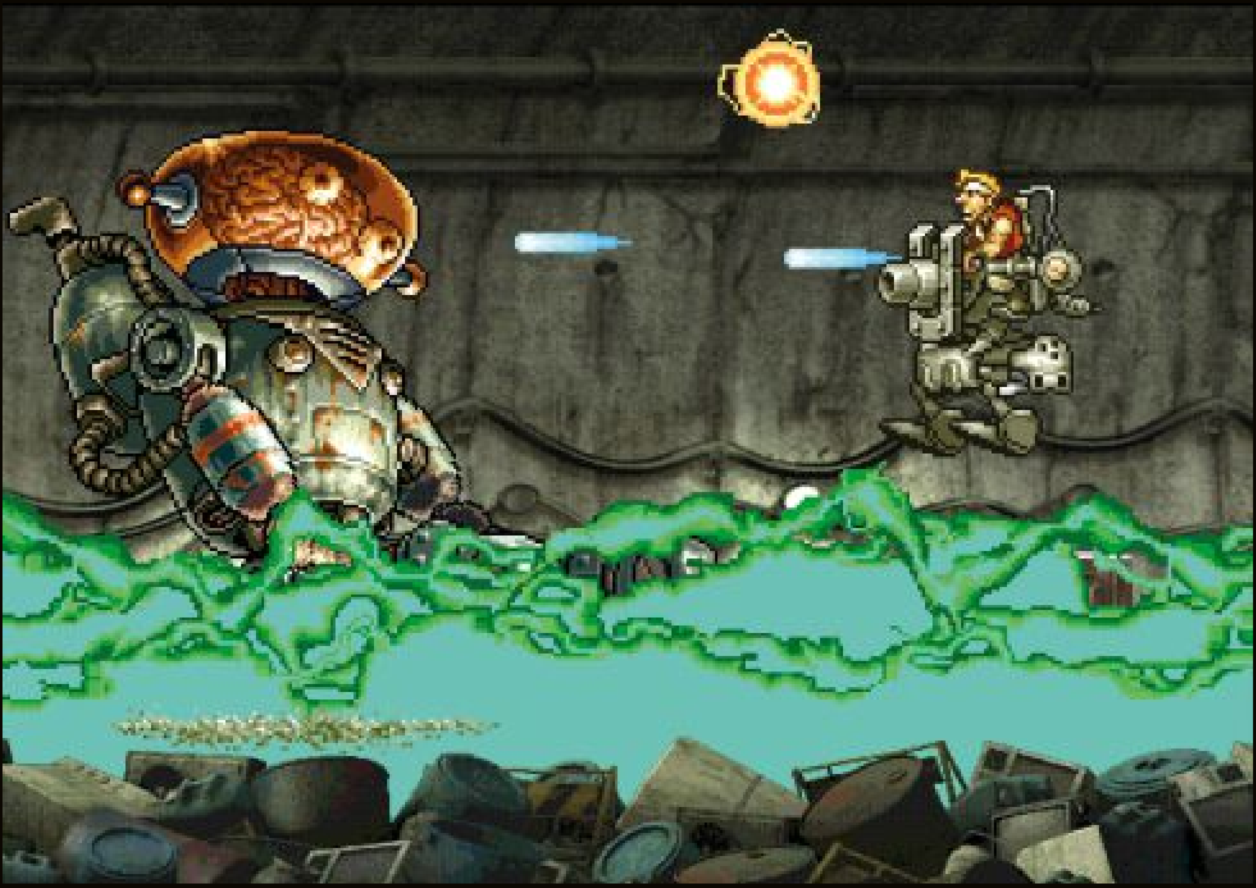
In true wacky Metal Slug style, one of the new Slugs in this sixth outing is the Donkey Slug. Similar in concept to the Camel and Elephant Slugs, the Donkey is seen pulling an outhouse fitted with a cannon as its deadly secondary attack.



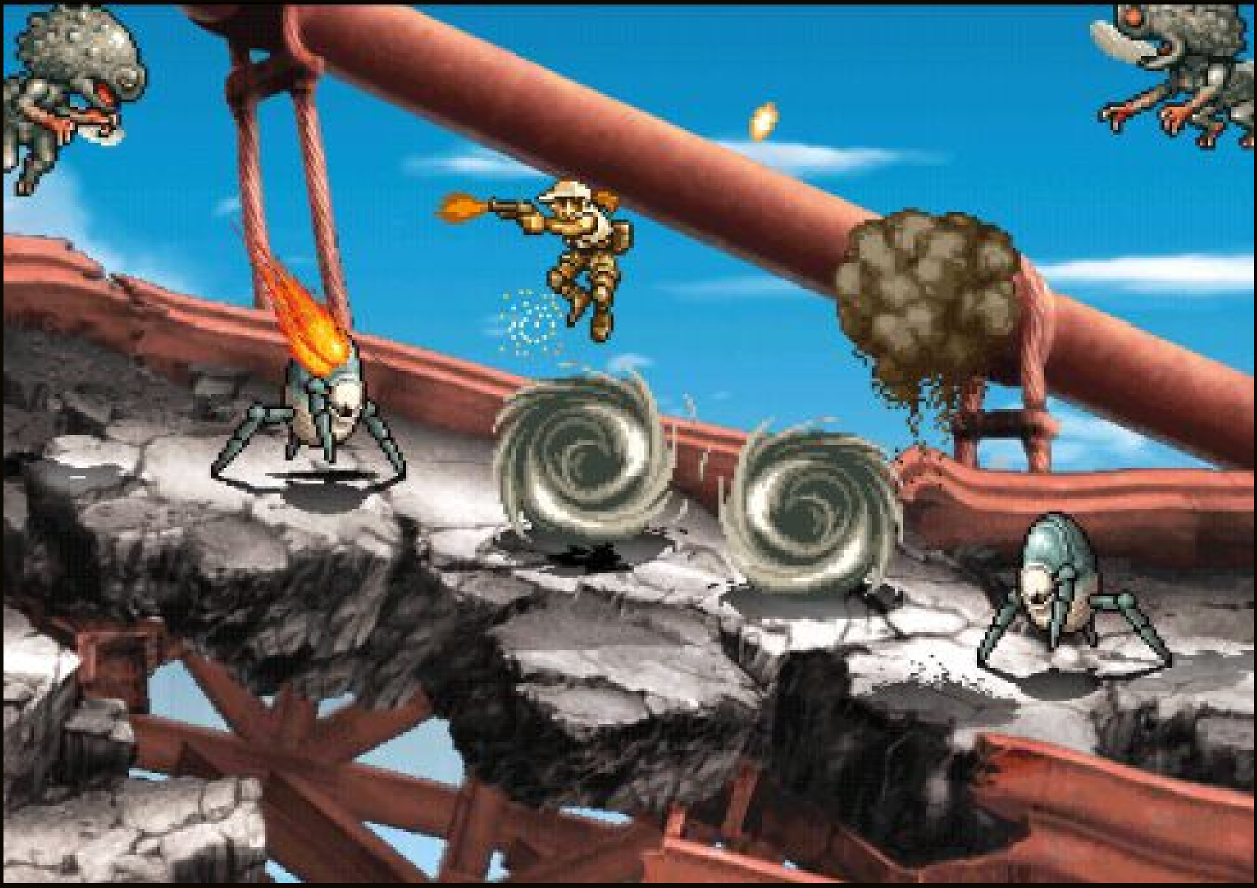
The advanced hardware running *Metal Slug 6* enables the viewpoint to zoom in and out of the action, as seen in the Iron Sentinel boss battle at the end of Mission 2. Impressively, the screen is also scrolling swiftly as you travel down the hill at breakneck speed.



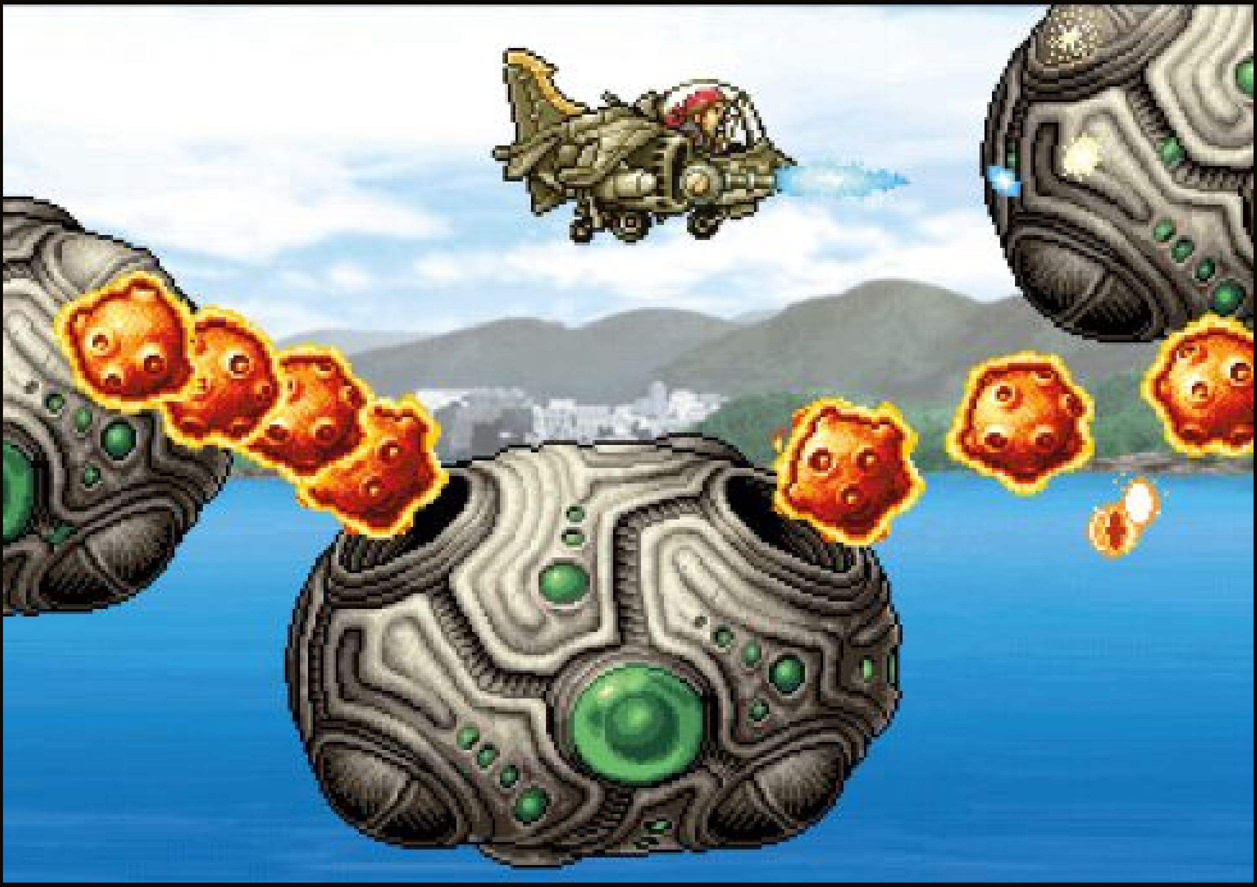
Metal Slug 6's Flying Parasites are seen here, attacking the hapless Chinese Soldiers. Once latched on, they can attach to their victim's brain to control their movements, or even completely devour their flesh, leaving just clothes. Yuck.



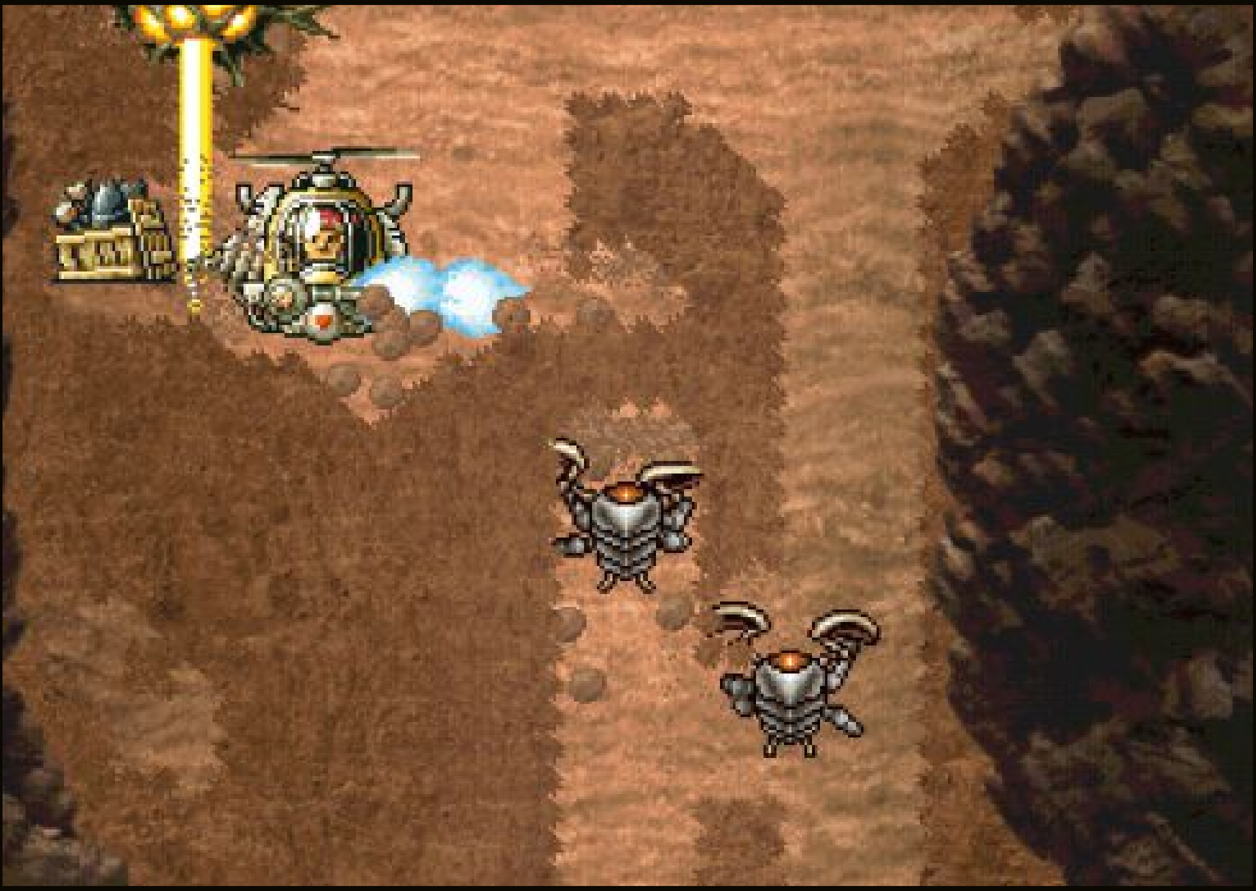
Being chased in the sewers by the Brain Robot at the end of Mission 3 is much easier if you're piloting the Slug Gunner Prototype – its extra-high jump can effortlessly avoid this formidable foe's electrical current attacks.



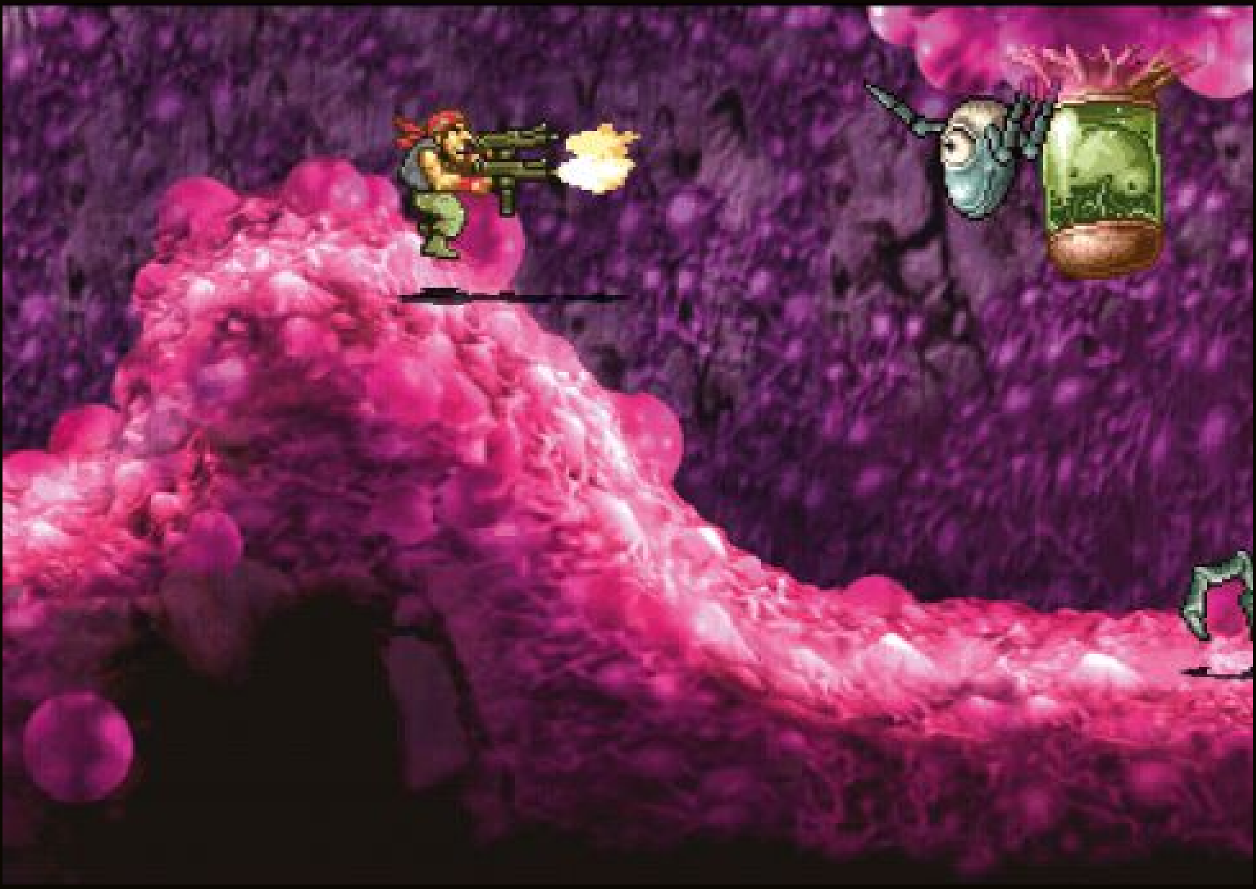
The Drone Invaders – complete with a Sonic The Hedgehog-esque spinning attack – are just one of the many extraterrestrial enemies found in *Metal Slug 6*.



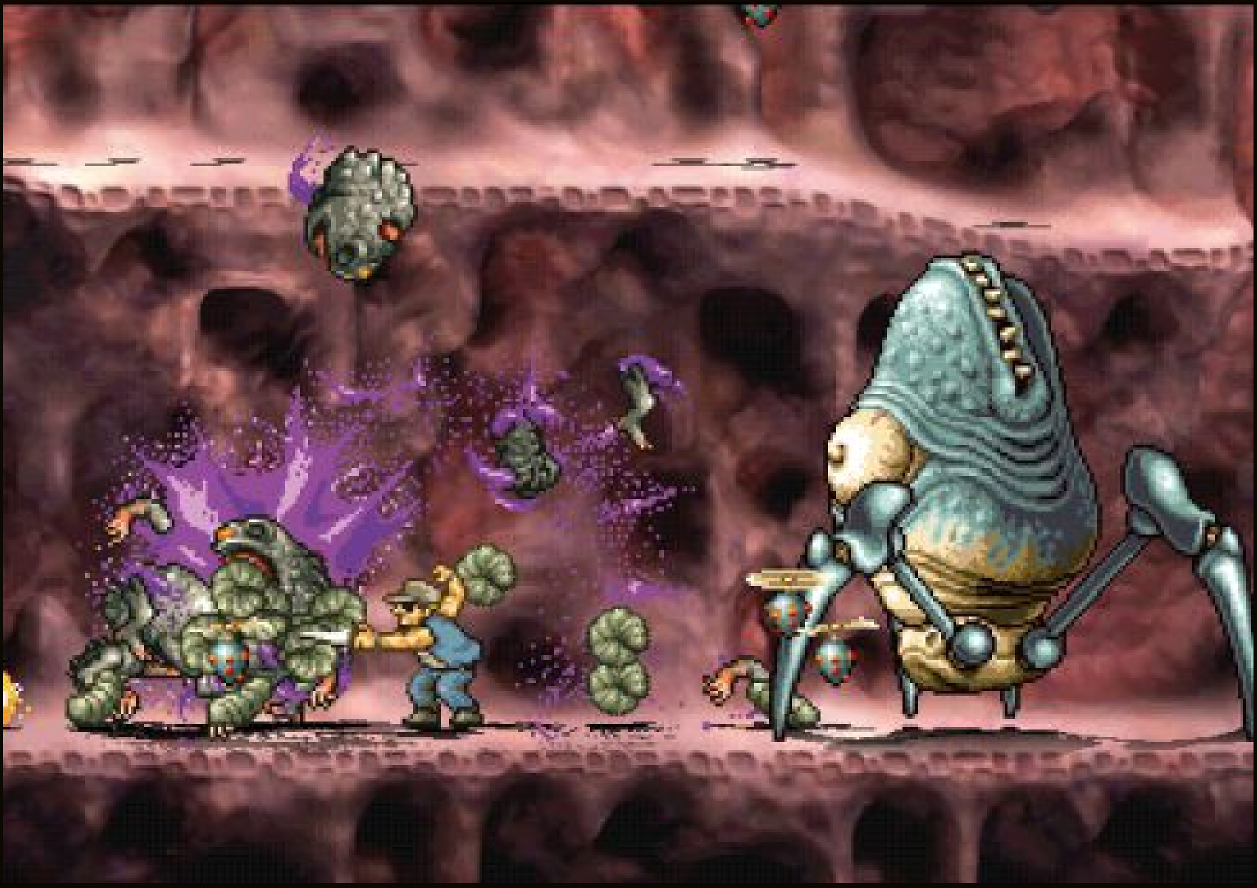
You encounter the Flying Shelts during Mission 4 while piloting the Slug Flyer. These UFO structures are completely indestructible, so they must be dodged if you wish to progress with your ship intact.



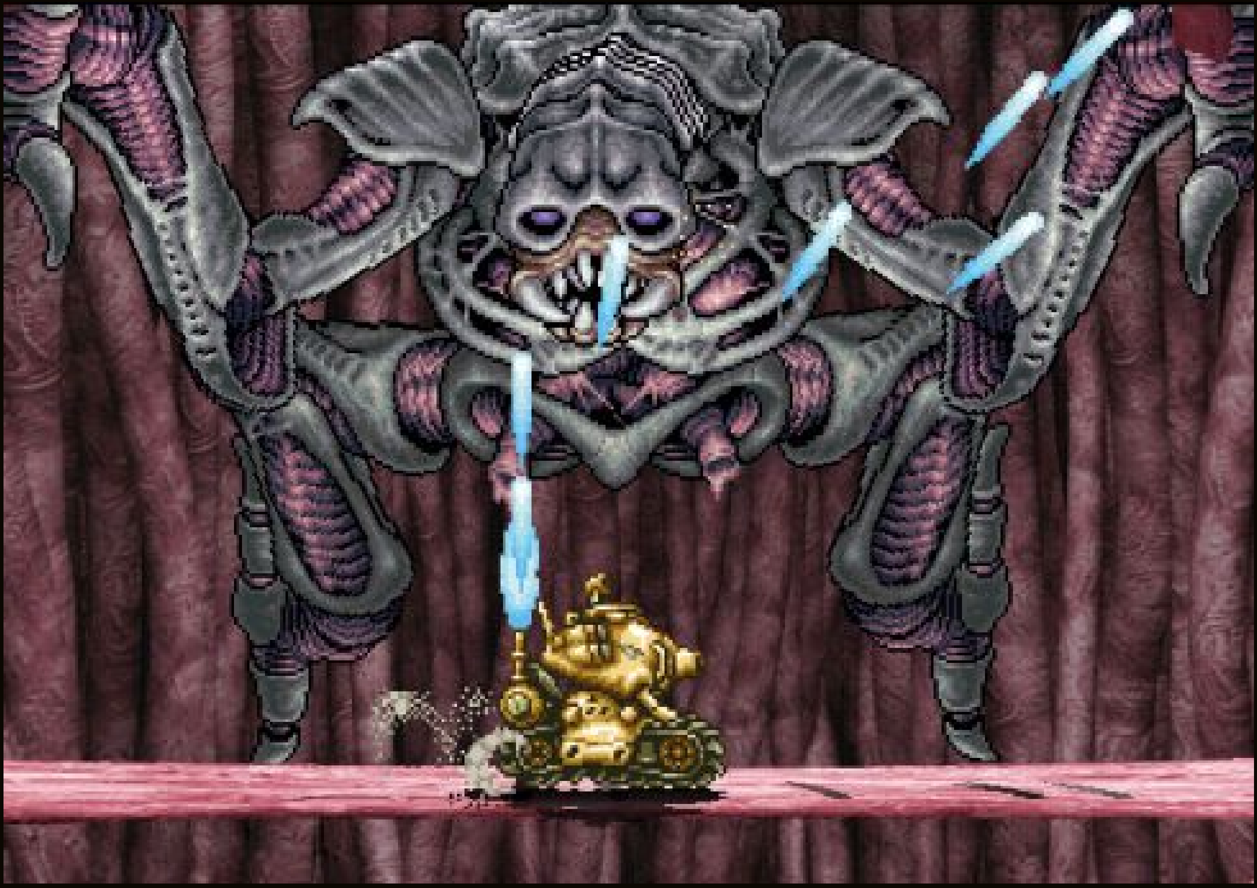
One of the coolest Slugs in *Metal Slug 6* has to be Slug Digger. Its unique abilities enable it to drill down through the terrain, while also doubling as a helicopter.



The part-fish, part-crab Hunter Walkers are some more of the alien enemies in *Metal Slug 6*. Be careful of the ones on the ceiling that drop their eyeballs down onto you.

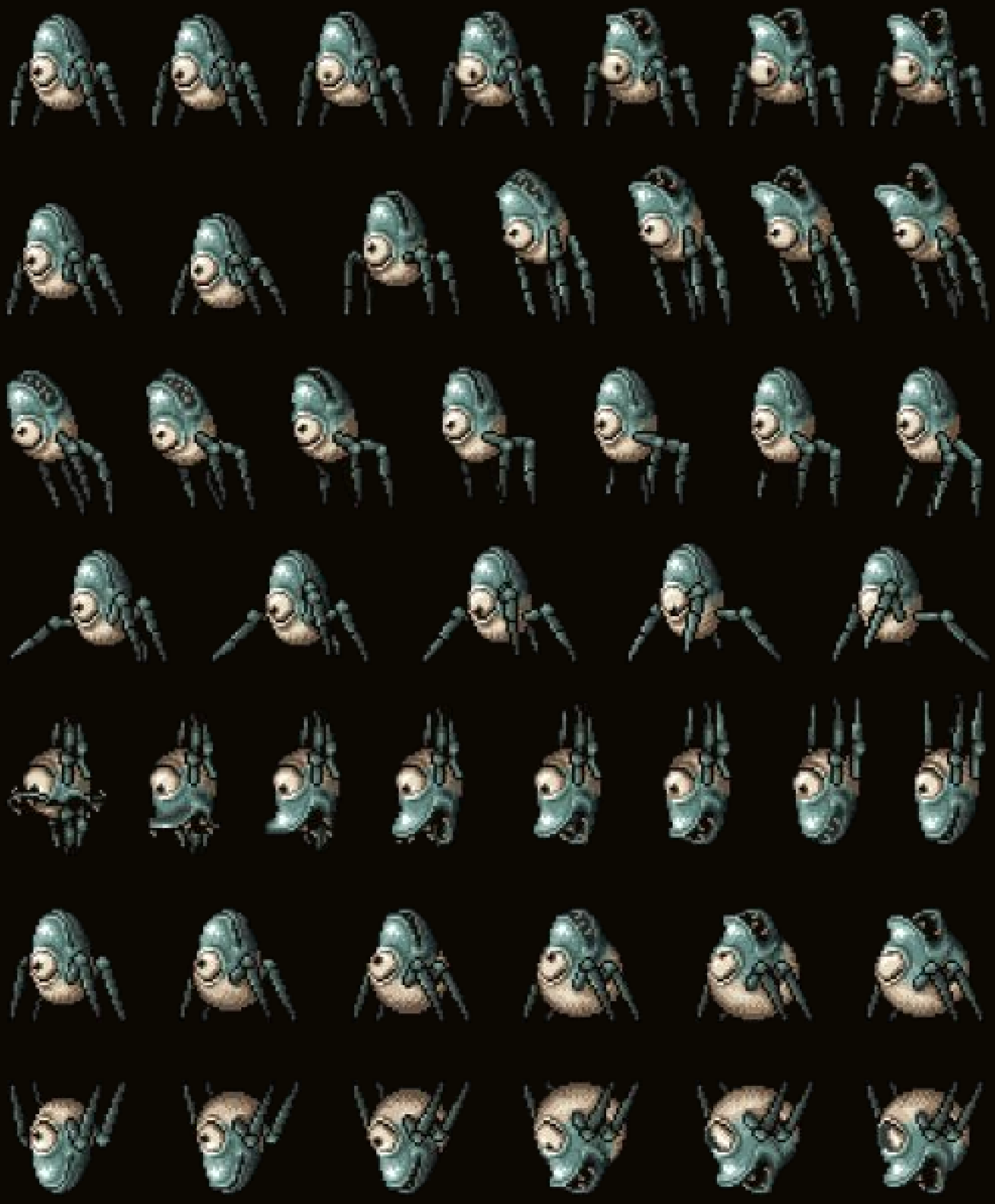


The Hunter Lord is the giant spawn of the Hunter Walker enemy. Due to its thick leather-like skin, you must shoot its eye to cause damage, whilst avoiding its deadly bombs.

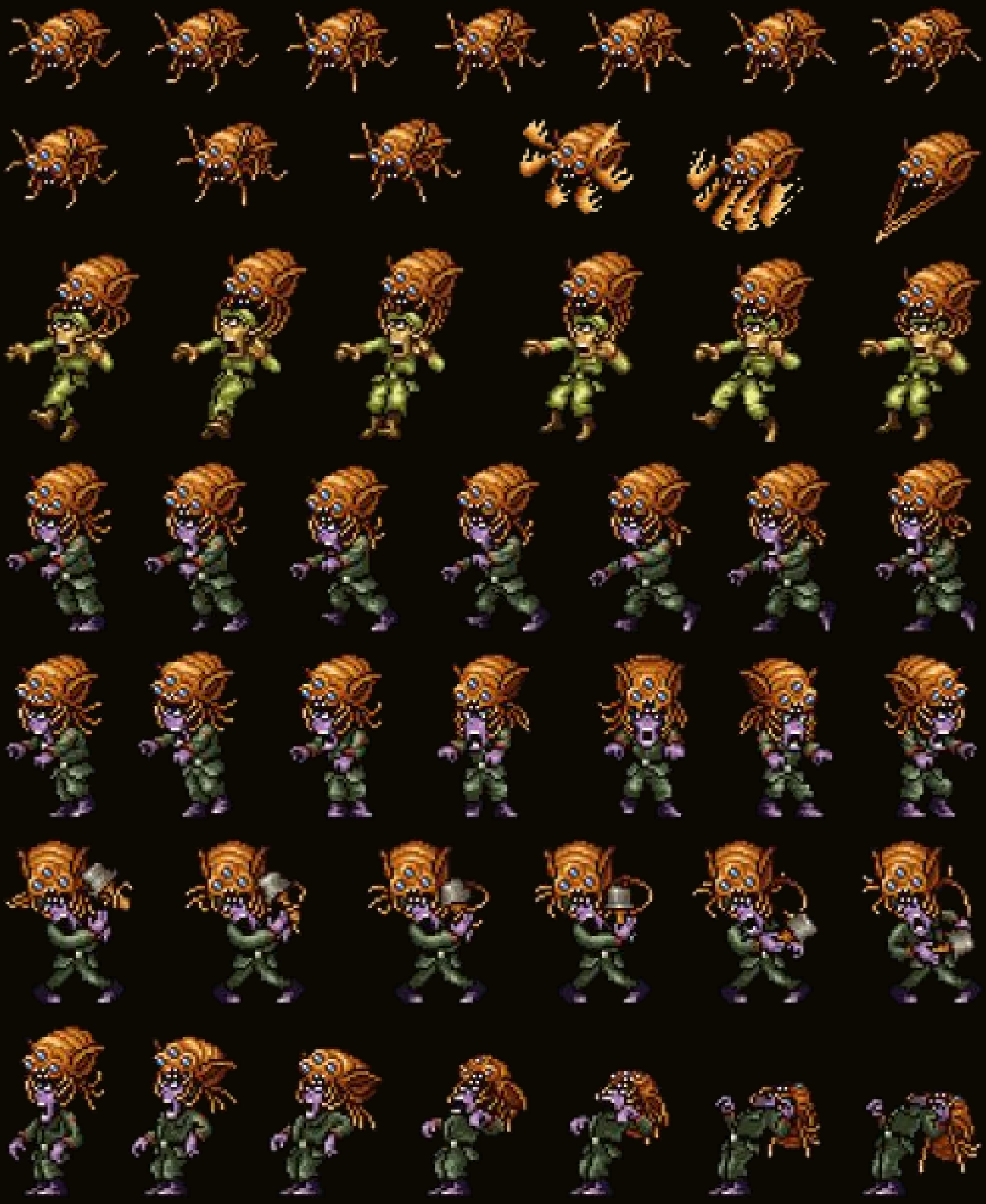


Appearing just in time for the Final Mission boss fight with the Invader Queen, the SV-001 Type-R is a special gold-coloured version of the iconic SV-001, boasting more speed and better jumping abilities.

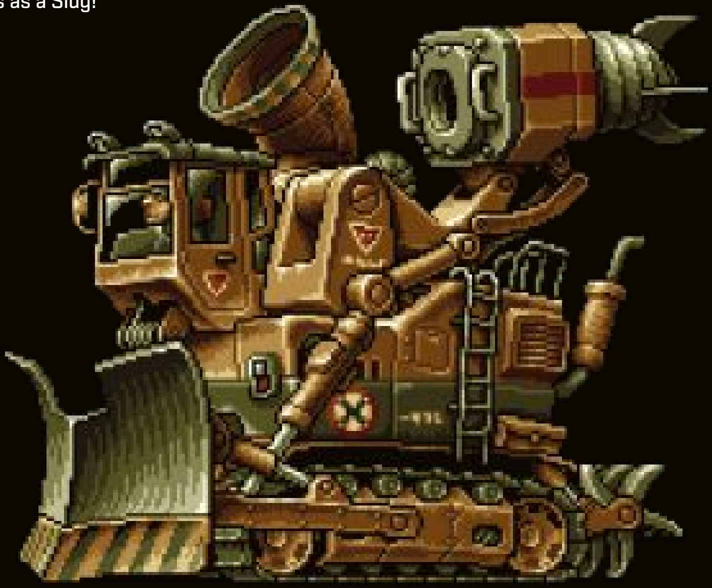
A series of sprites for the Hunter Walkers that appear during Missions 4 and 5. Their main attack is spitting purple toxic bubbles. Keep an eye out for the Gold Hunter Walkers that reward you with 50,000 points if killed.



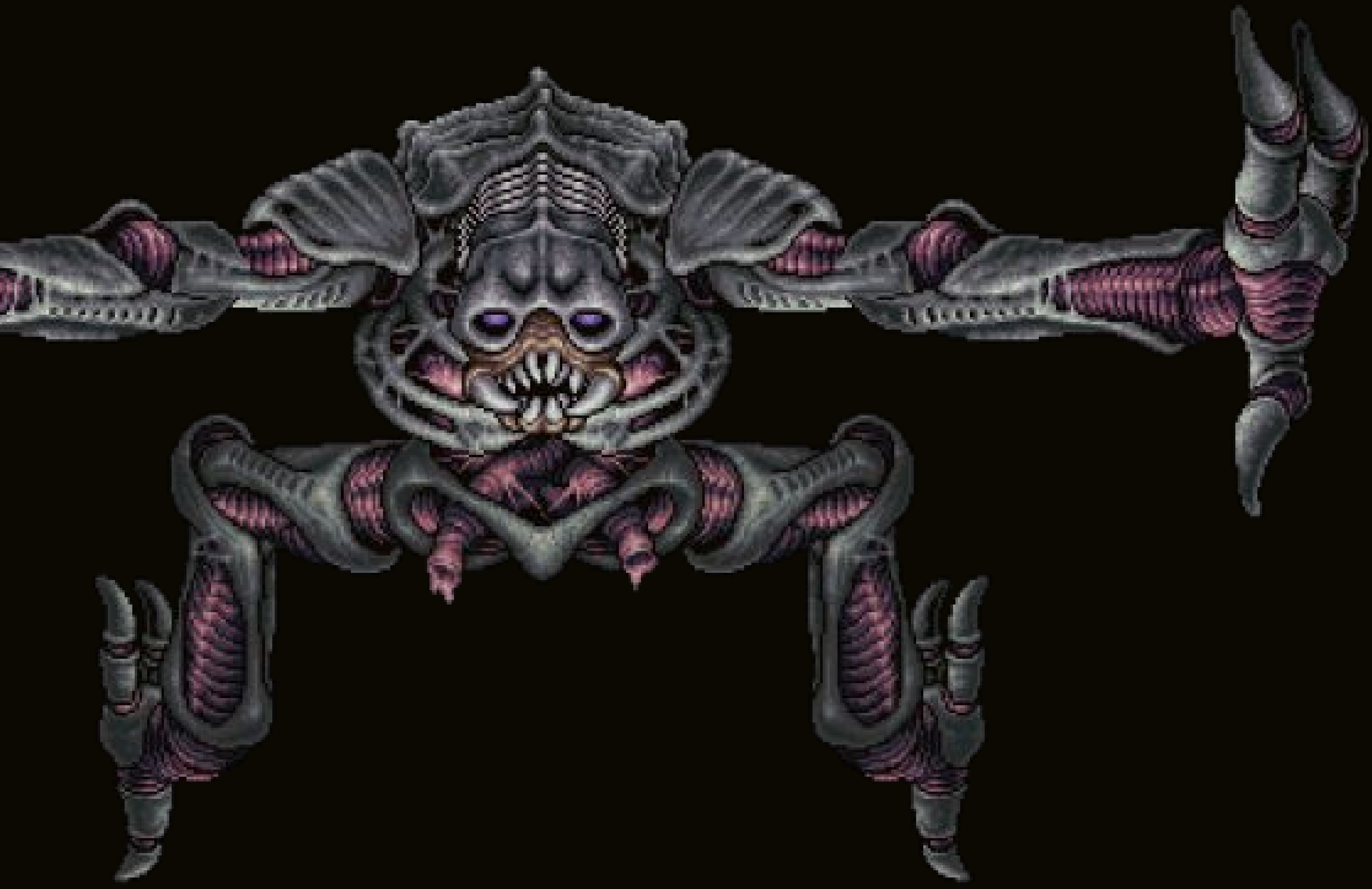
Similar to the Facehugger parasite from the Alien film franchise, the Flying Parasites latch onto their host. The sprite animations below show a poor Chinese Solider succumbing to its horrific attack.



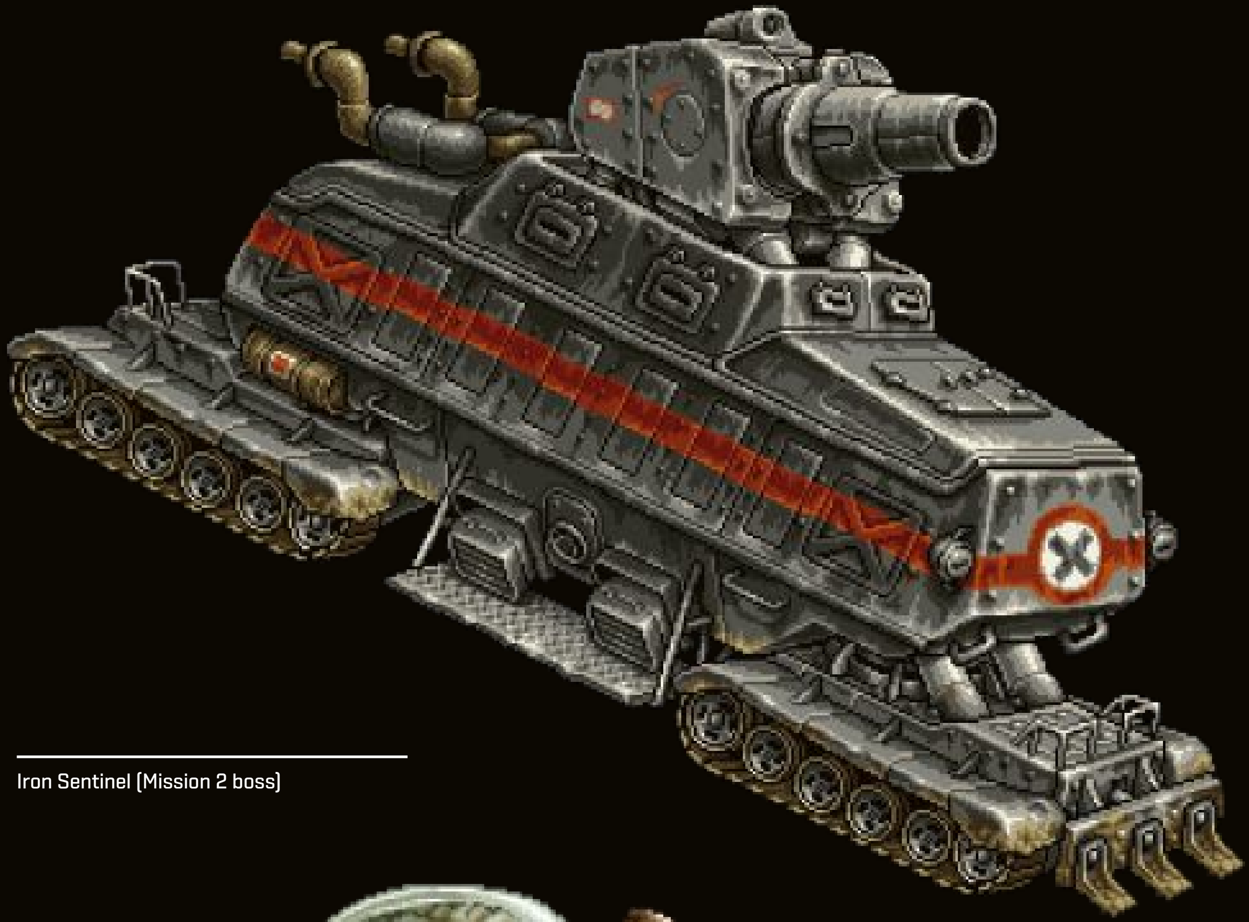
Metal Slug 6 features some really impressive bosses that are not only huge in size, but make use of graphical tricks, such as being able to zoom in and out of the action, thanks to the advanced arcade hardware. Equally impressive is getting to use your old enemy Rootmars as a Slug!



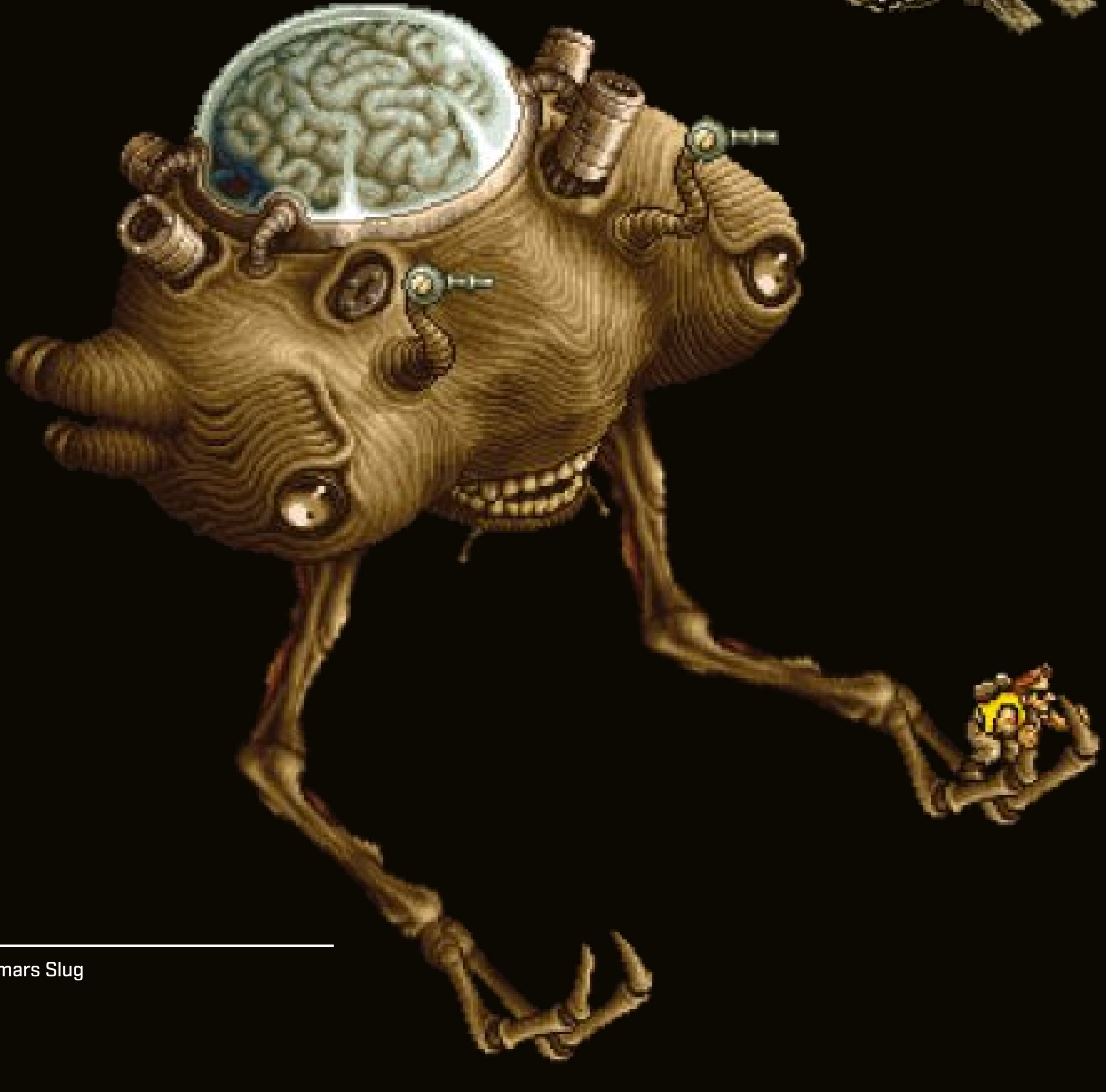
Bull Drill (Mission 1 boss)



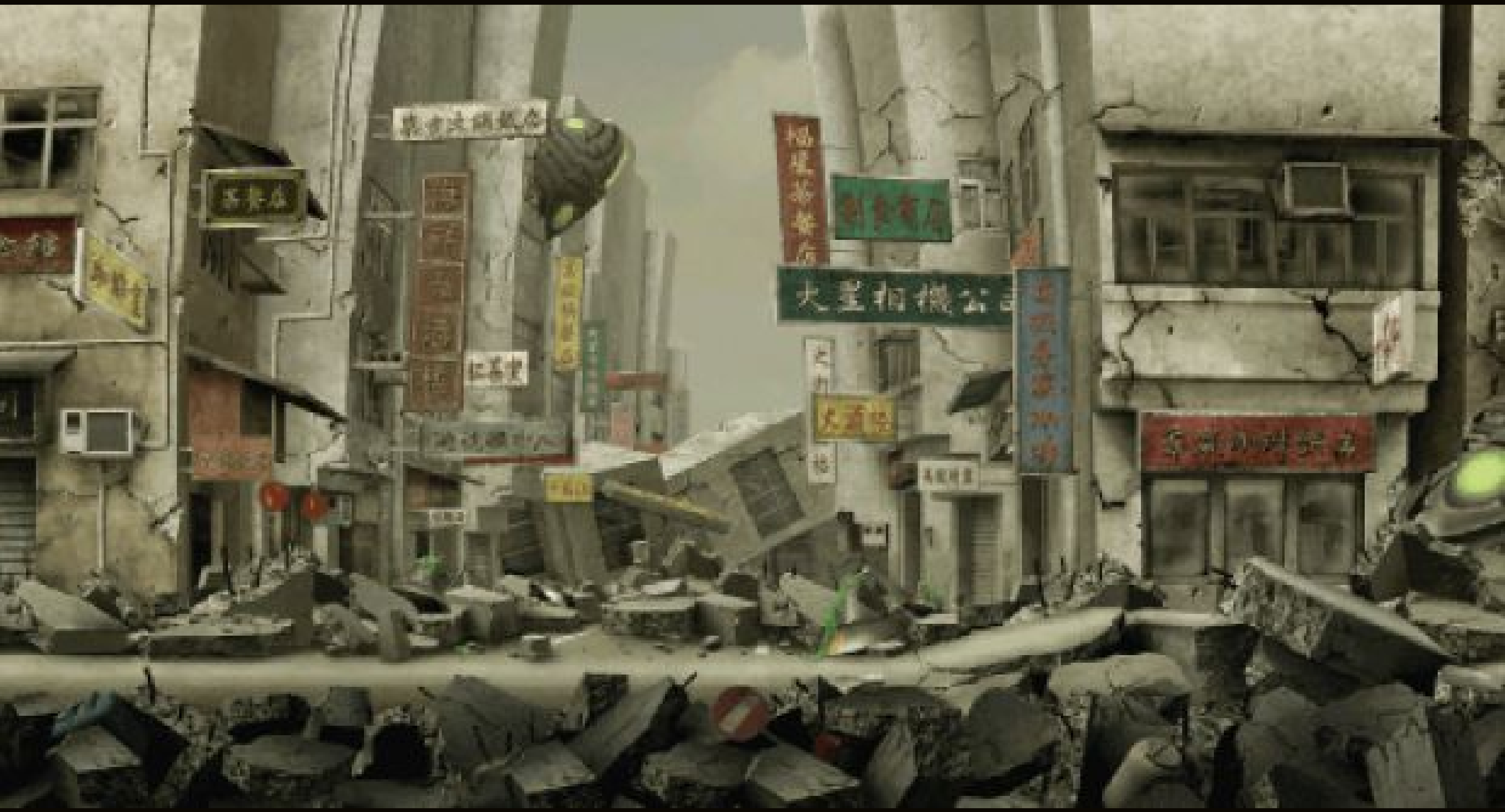
Invader Queen (Final Mission boss)

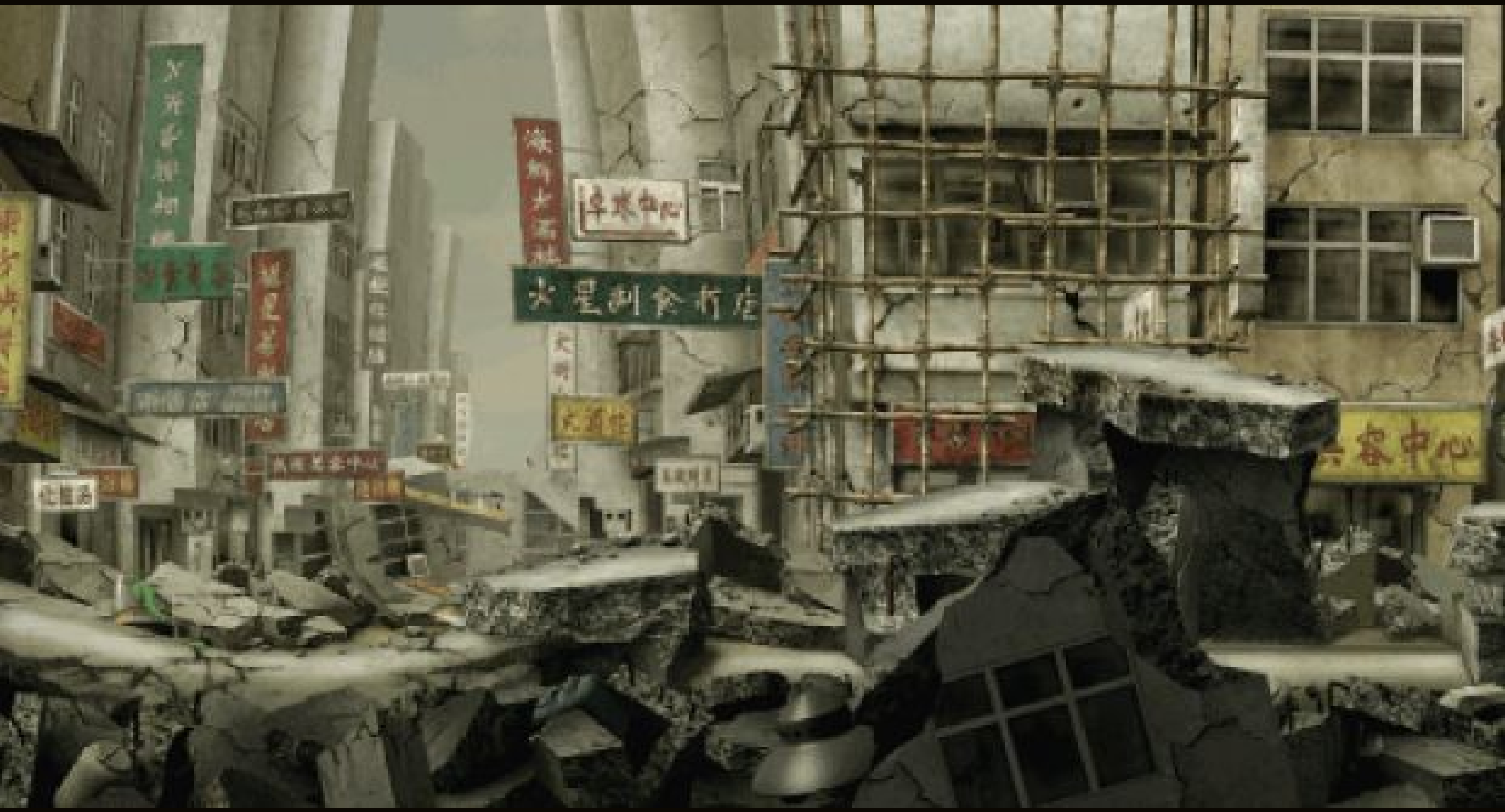


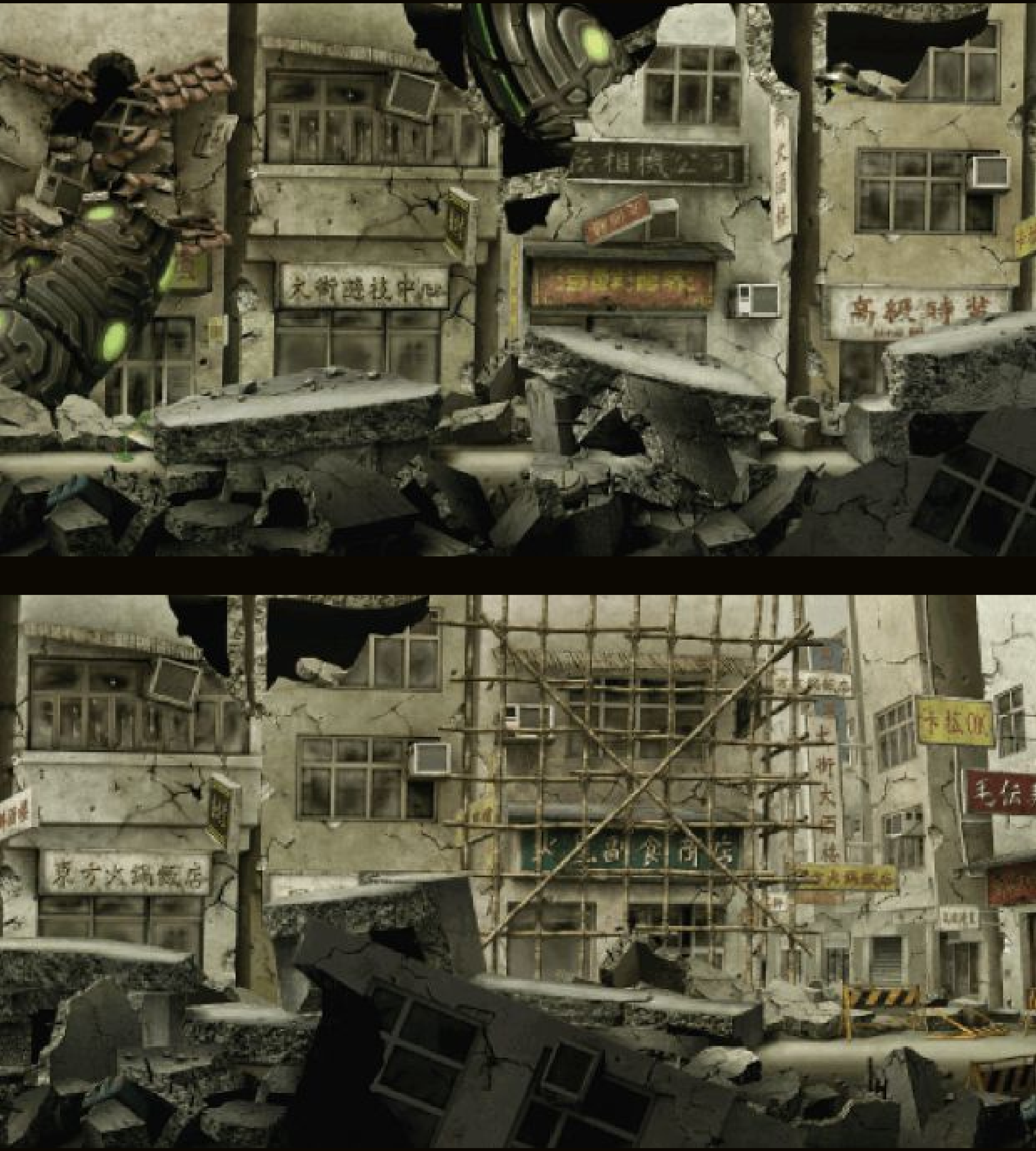
Iron Sentinel (Mission 2 boss)



Rootmars Slug







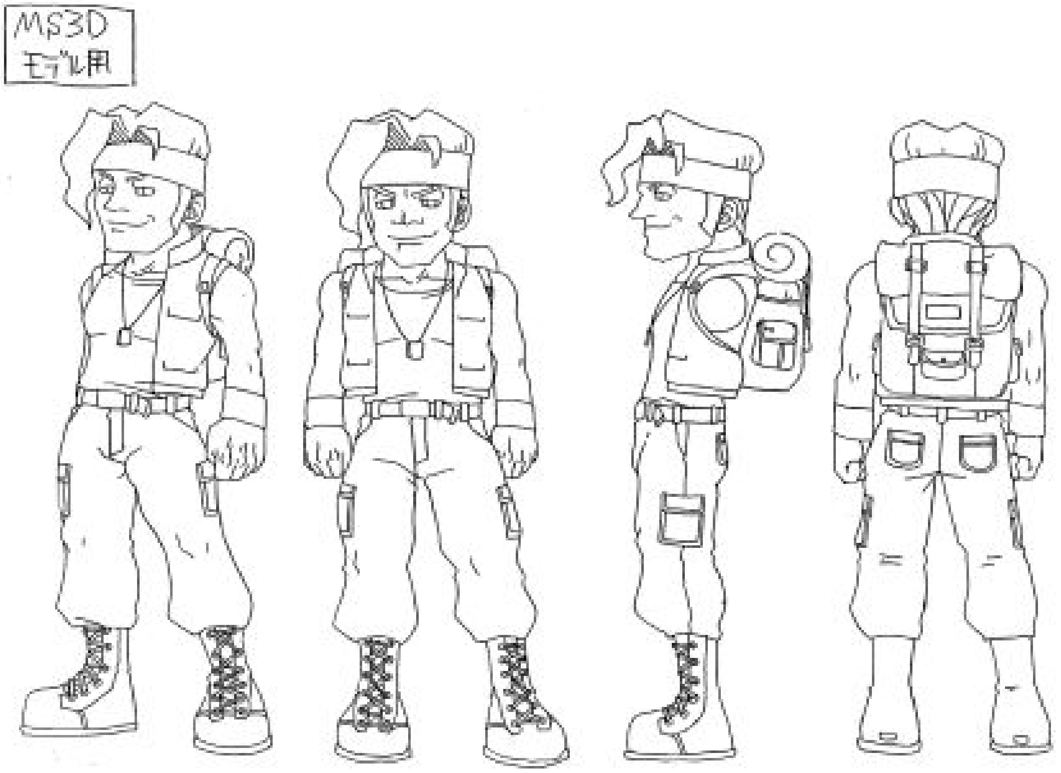
This level map for Mission 3 is incredibly detailed, and a great example of the pre-rendered, high-res backgrounds seen throughout *Metal Slug 6*. The city has been devastated by a multitude of UFOs that have crash-landed, causing mass destruction and unleashing swarms of pesky Flying Parasites.

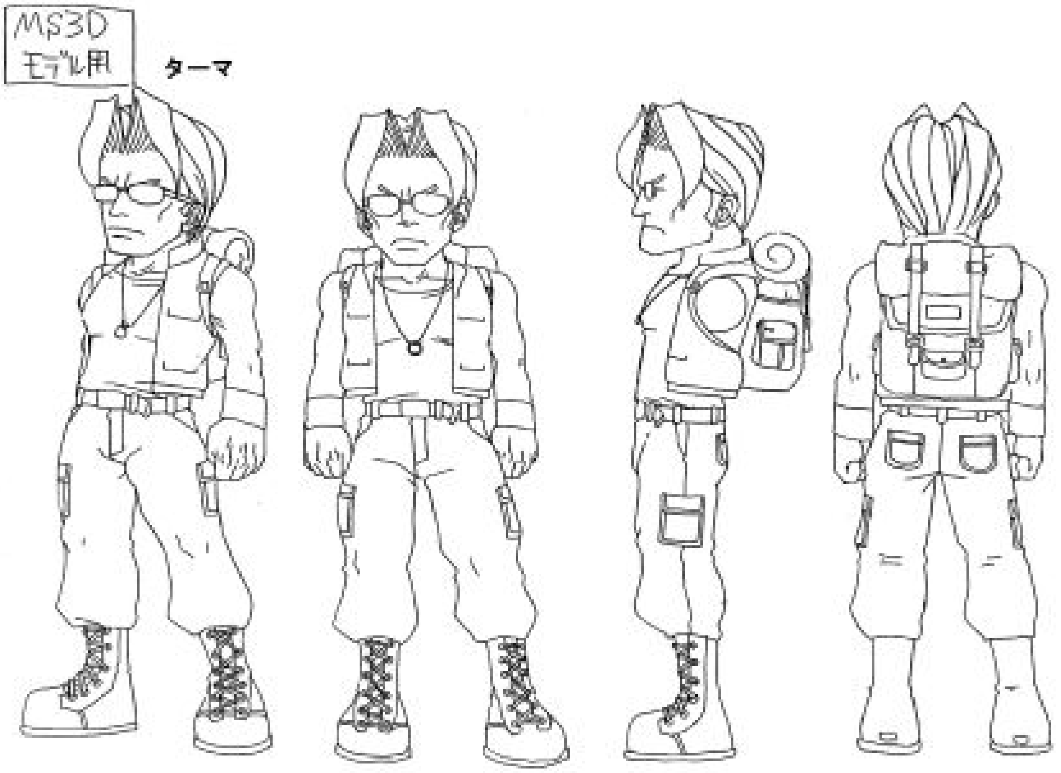
First released: 2006 / Players: 1 / Developed by: SNK / Published by: SNK

PS2

The only attempt, to date, to translate the Metal Slug series to 3D was a divisive release; while it introduced some progressive ideas – such as the ability to upgrade and customise your tank – the shift to three dimensions required a drastic change to the core run-and-gun gameplay. It was a shift that found little favour with fans, and the game was greeted with lukewarm reviews when it launched in Japan in 2006. A Western release was mooted but never happened; although, the Japanese version is easy to play, even if you don’t speak the language.

Although only single-player, *Metal Slug 3D* allows you to control either Marco Rossi, Fio Germi, Tarma Roving or Eri Kasamoto. The sketches here display each protagonist in front, rear and side views.

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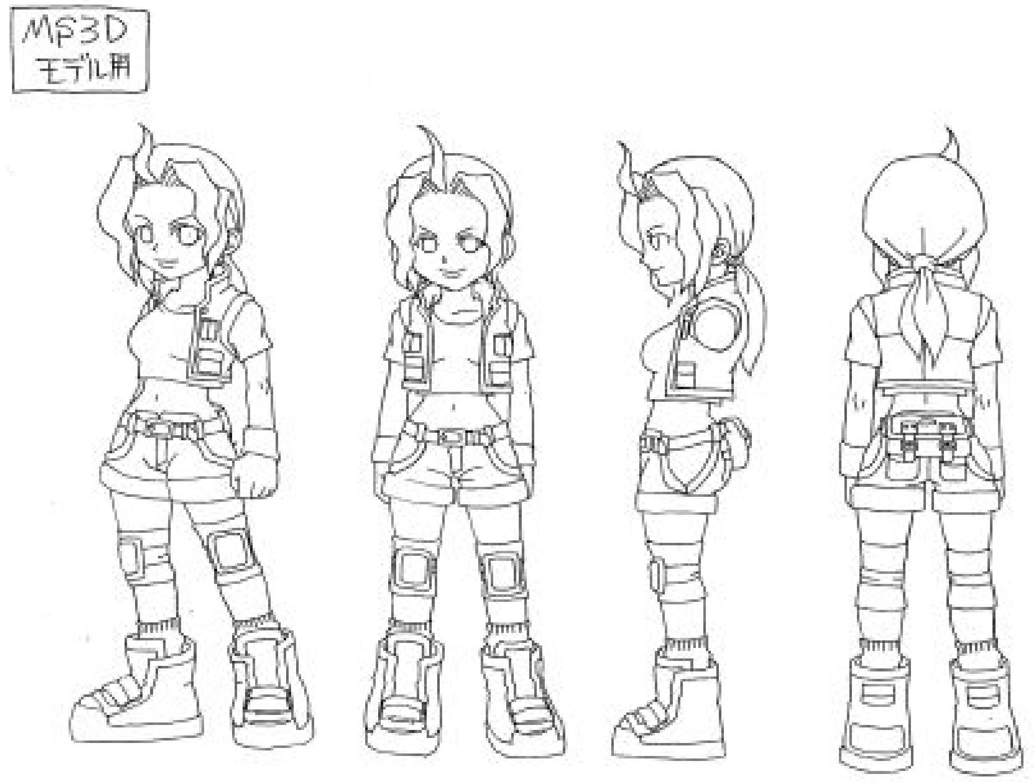

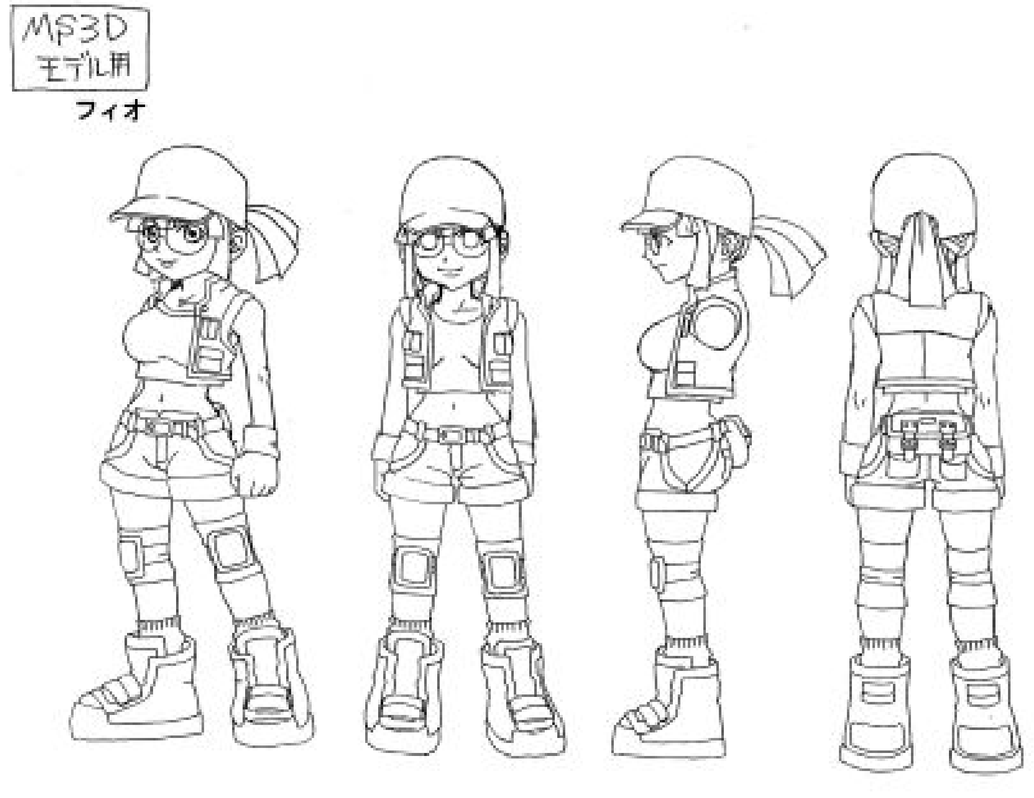

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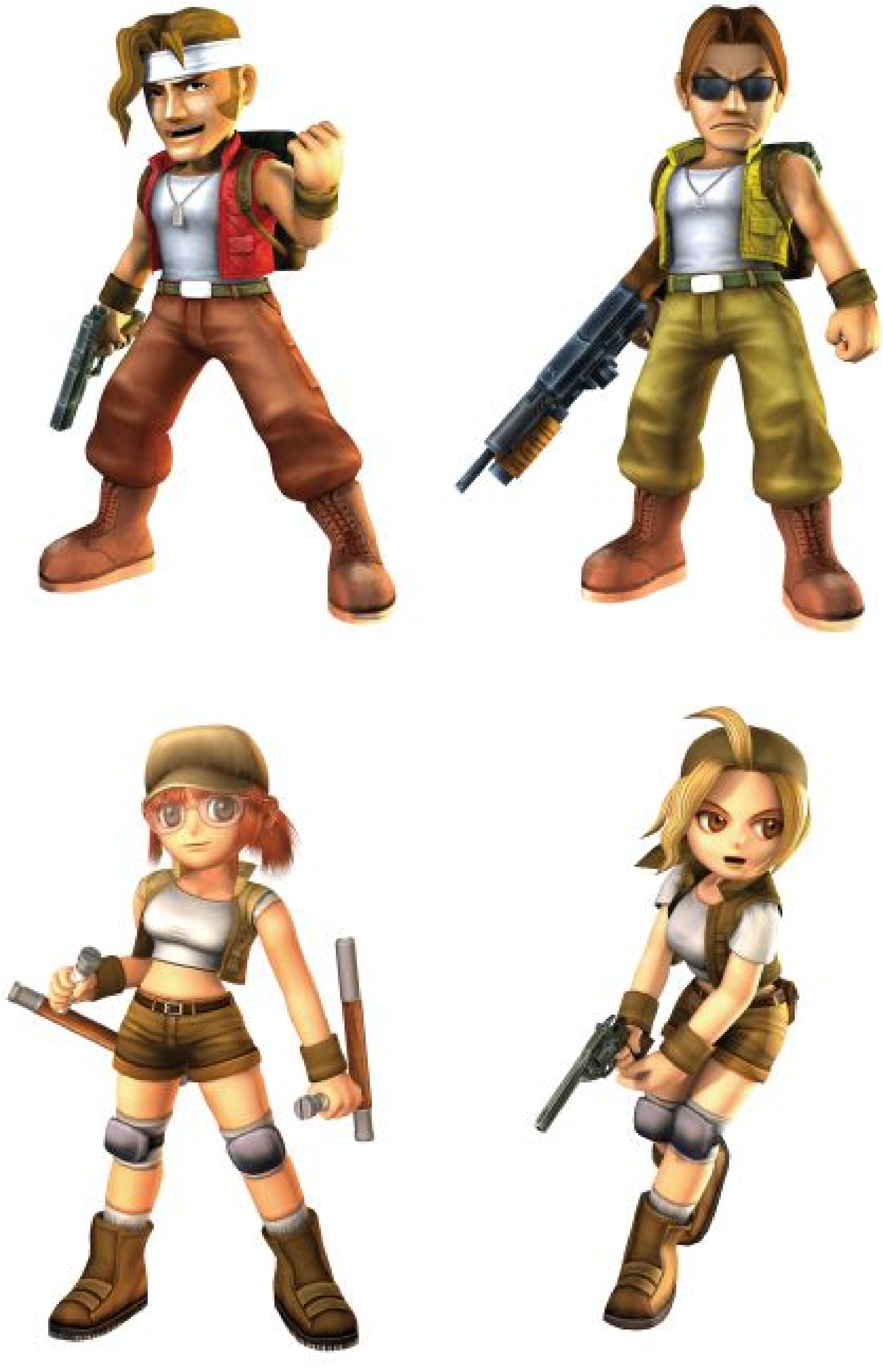
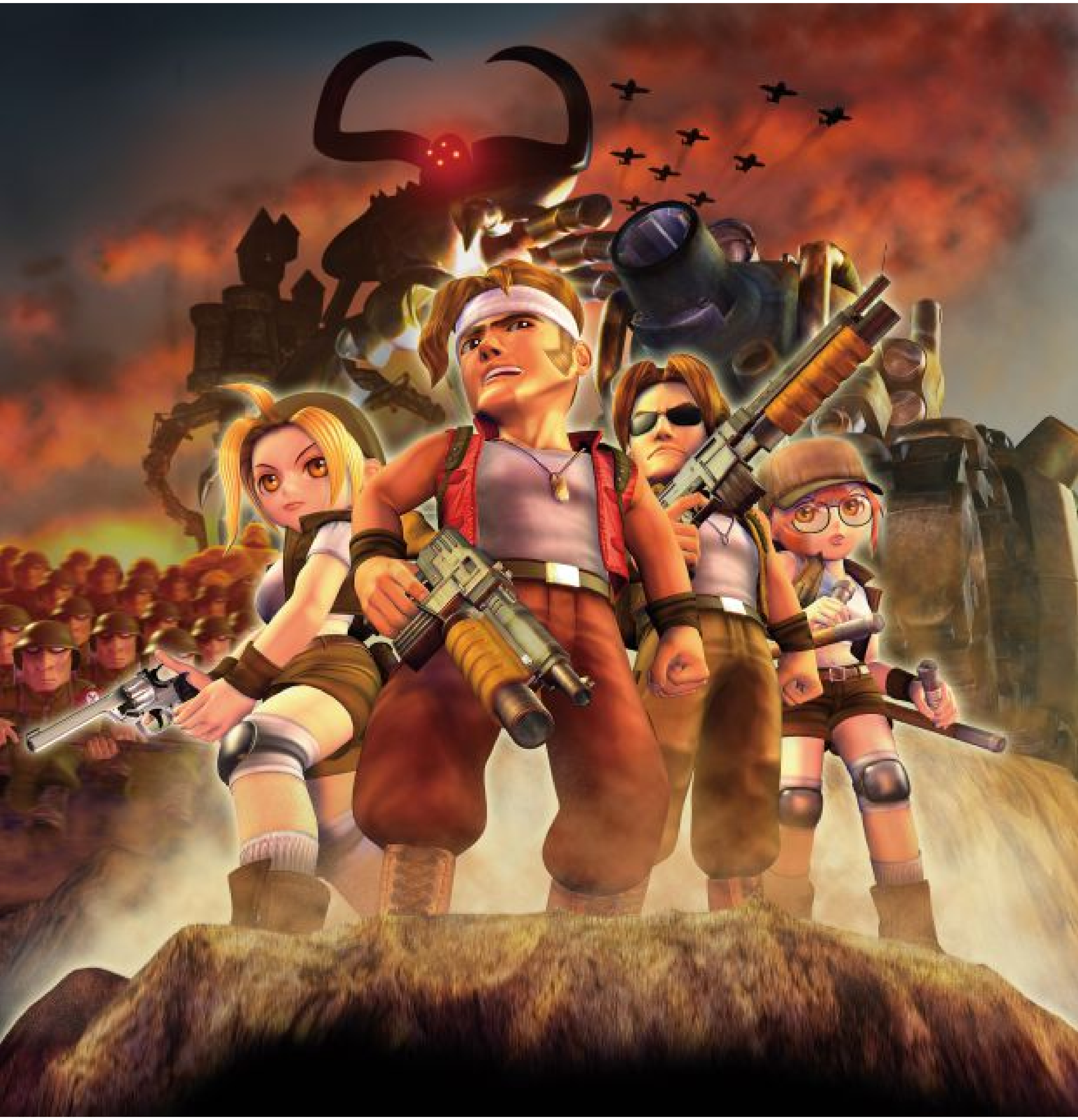
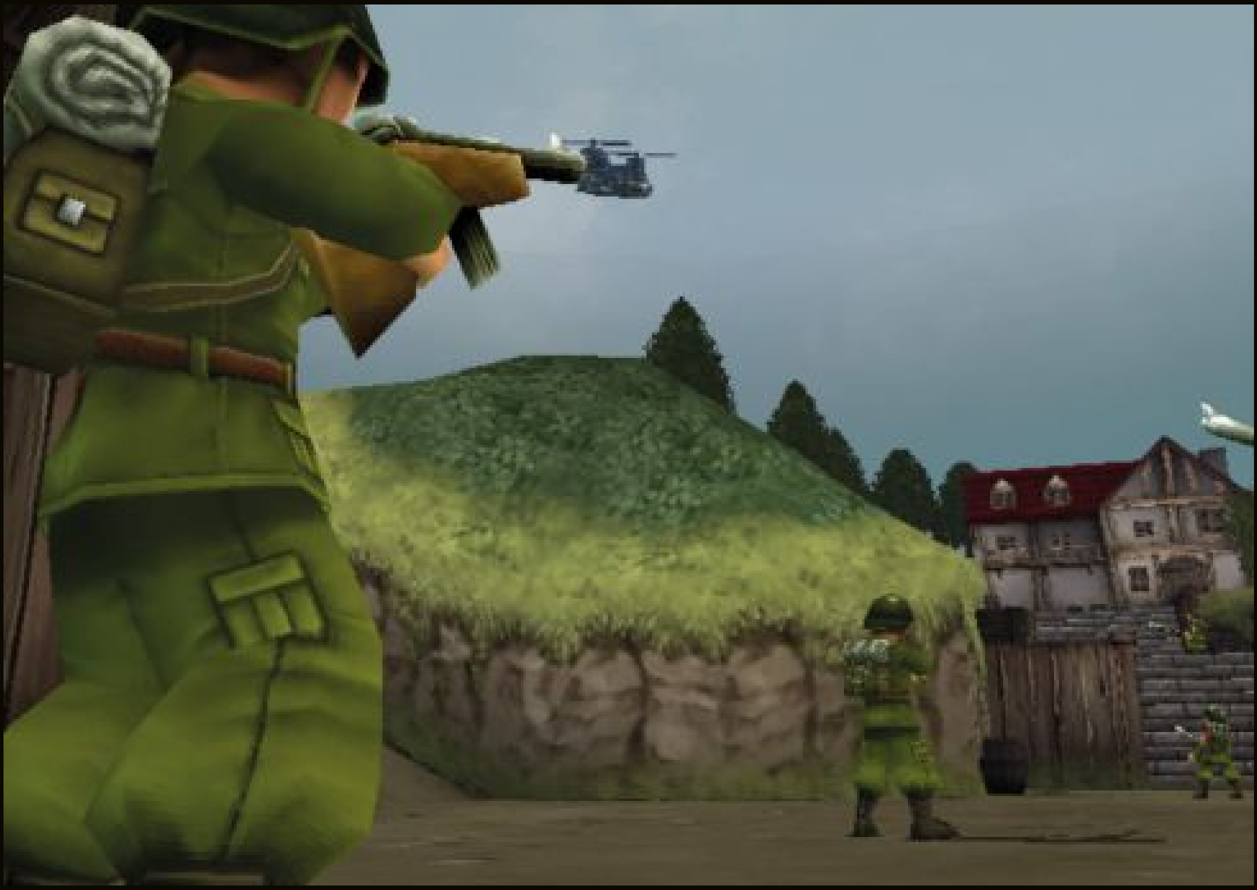
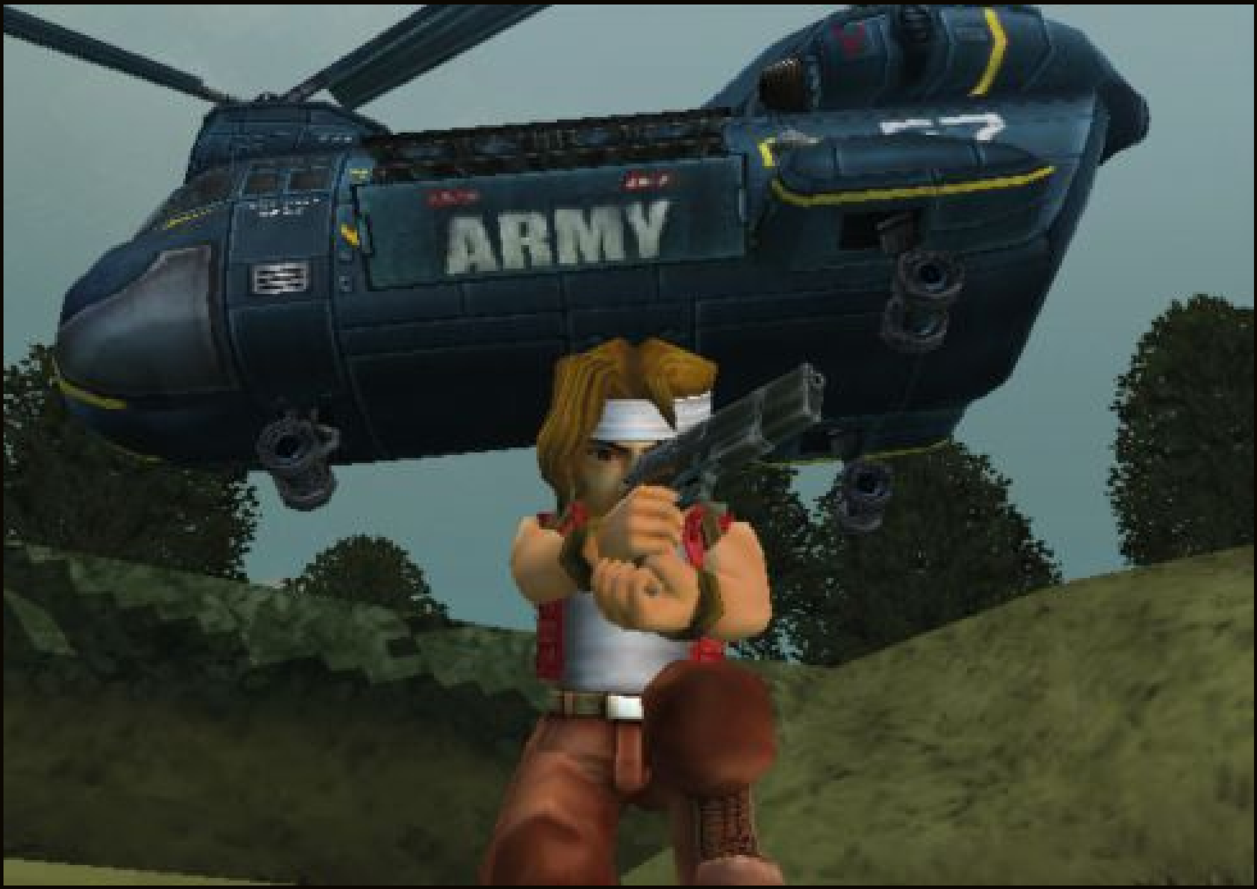
Rendered 3D visuals of the four playable characters seen in *Metal Slug 3D*. Compared with previous designs, they seem to be shorter and more 'Chibi'-like than usual.



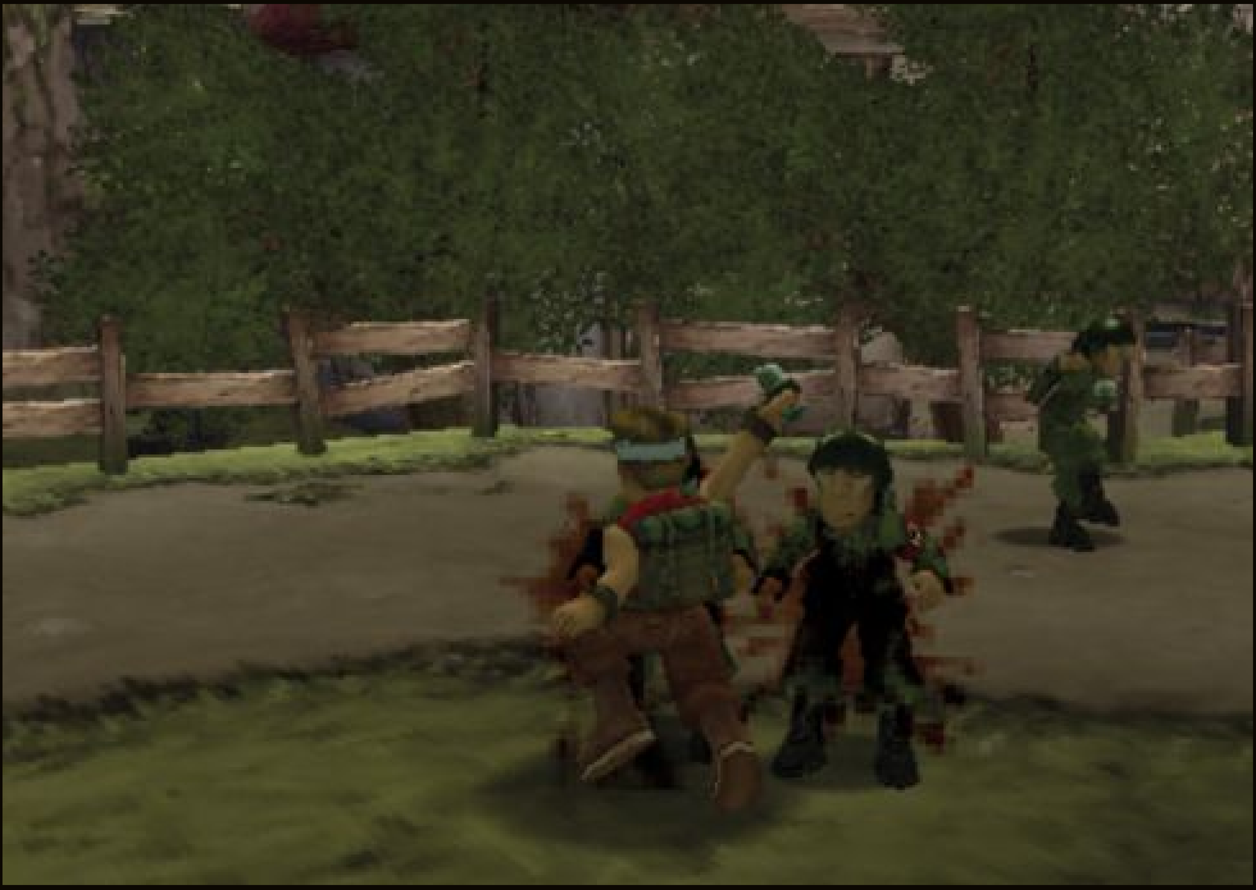
Although the cut-scenes are in English, *Metal Slug 3D* was only ever released in Japan for the PlayStation 2. This cover artwork shows all the characters standing in front of the SV-001, with the Rebel Soldiers and Lugas – one of the main bosses – looming menacingly in the background.



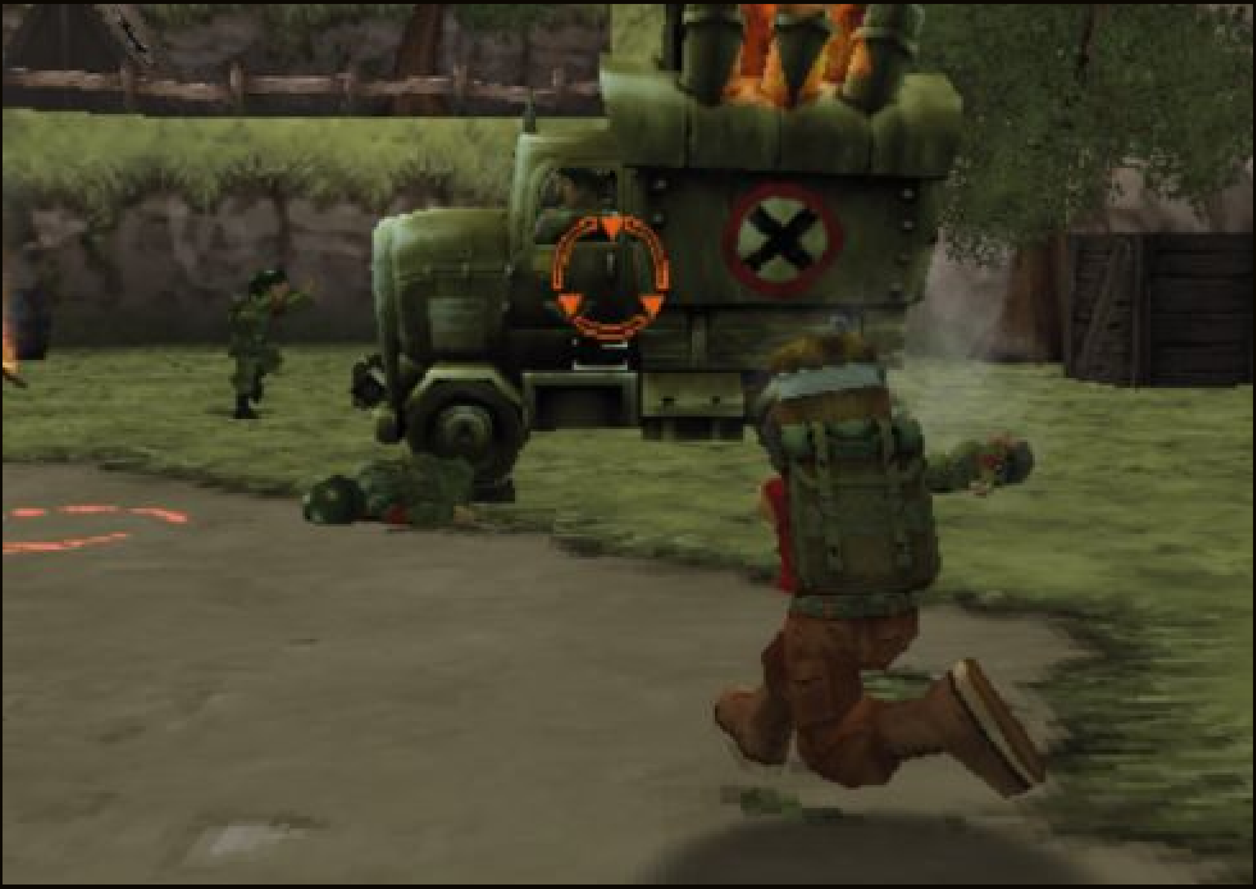




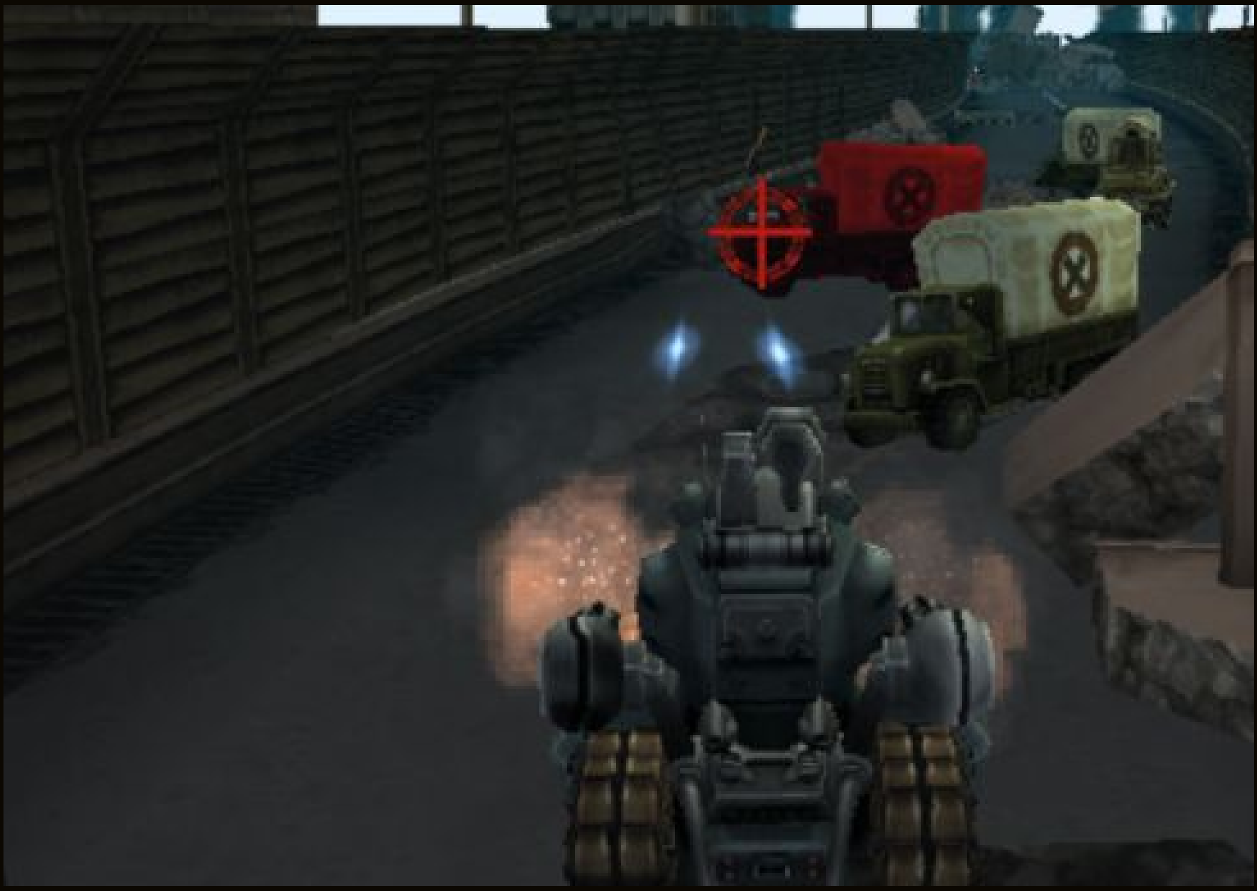
Although *Metal Slug 3D* makes great use of the PlayStation 2's graphical power, it doesn't employ cel-shading; and as a result, it ran into some criticism at the time of release. This intro sequence shows Marco and Tarma on board an army transport helicopter, getting ready for impending battle.



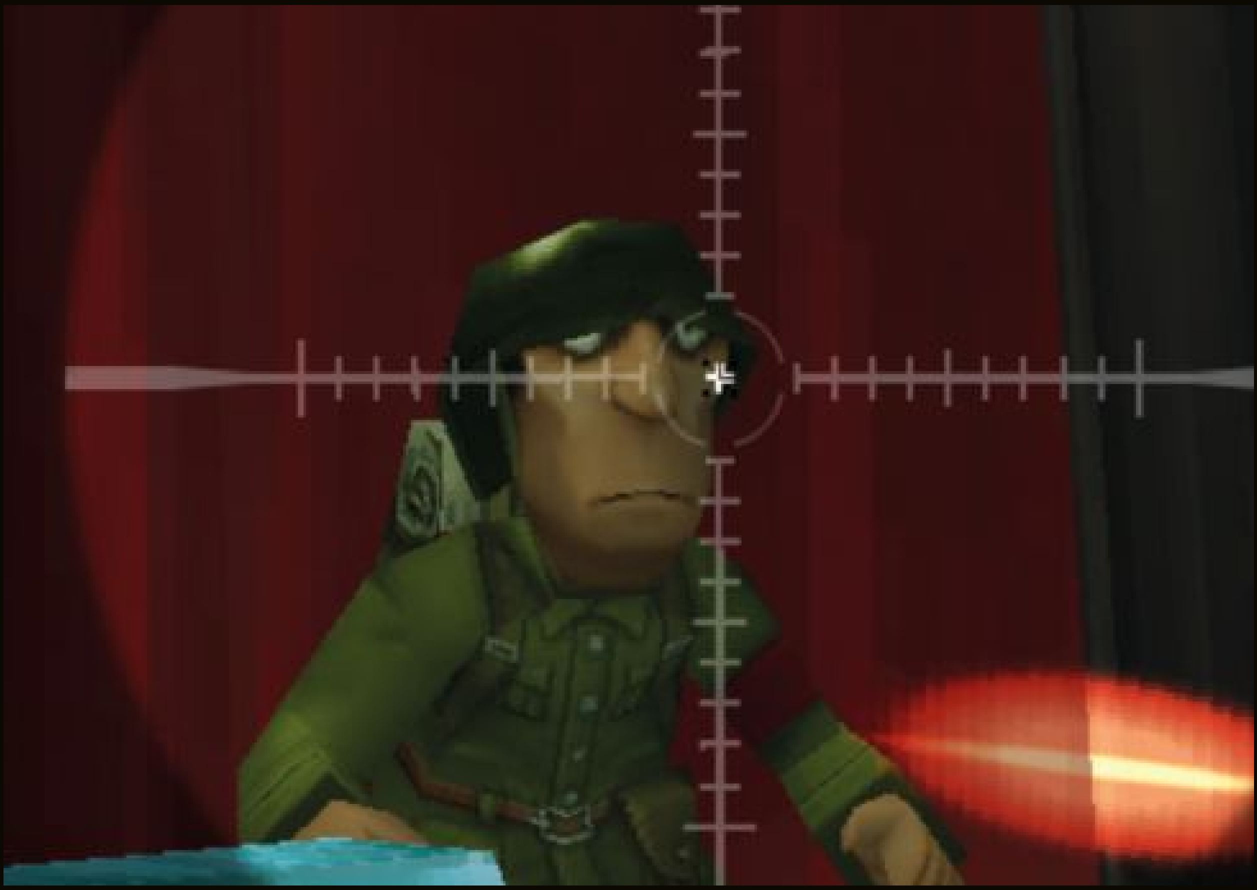
Up close, you can use your combat knife, just like you could in the 2D Metal Slug entries. There's also plenty of blood and gore on display.



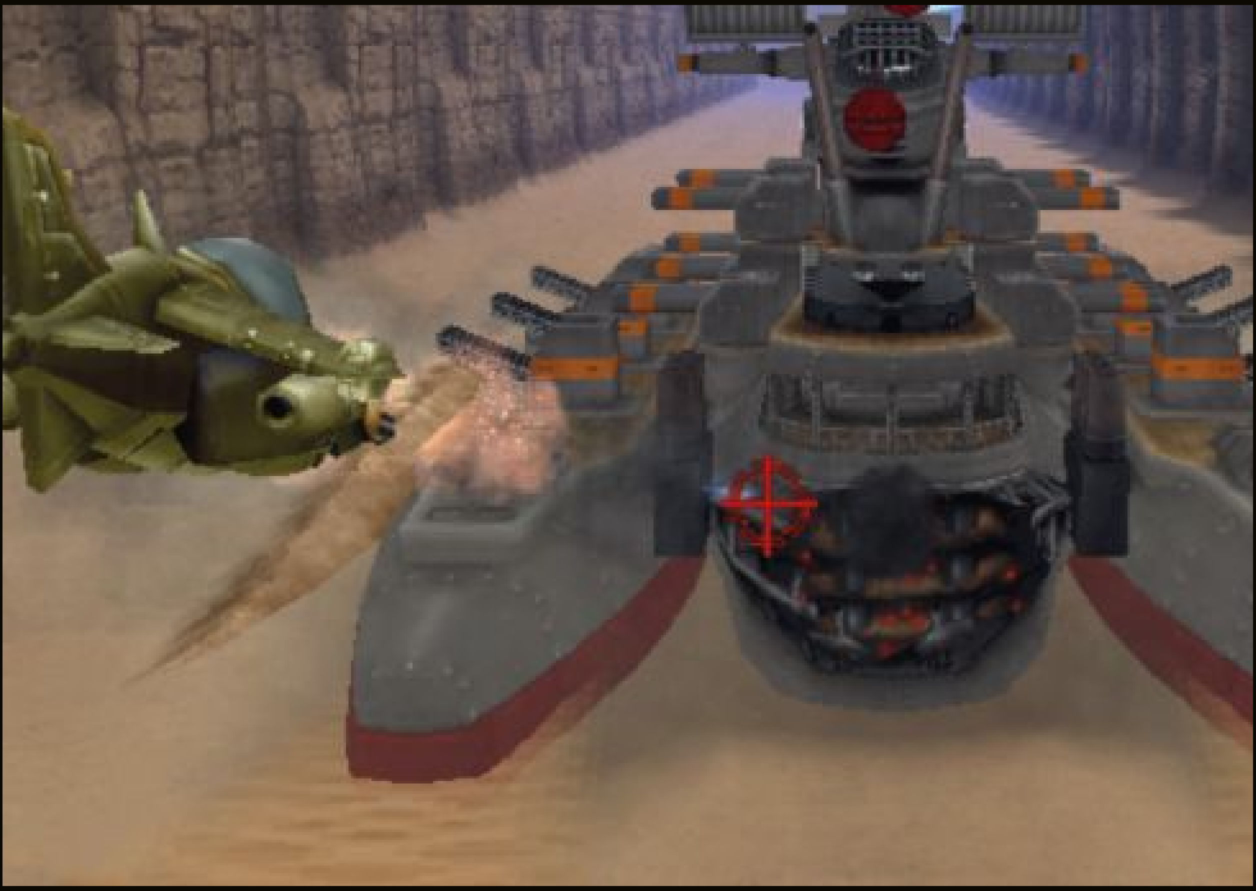
The crosshair enables you to auto-lock onto enemies with certain weapons, which helps during some of the more frantic scenes. The duration of time you can stay auto-locked for can be increased with power-ups.



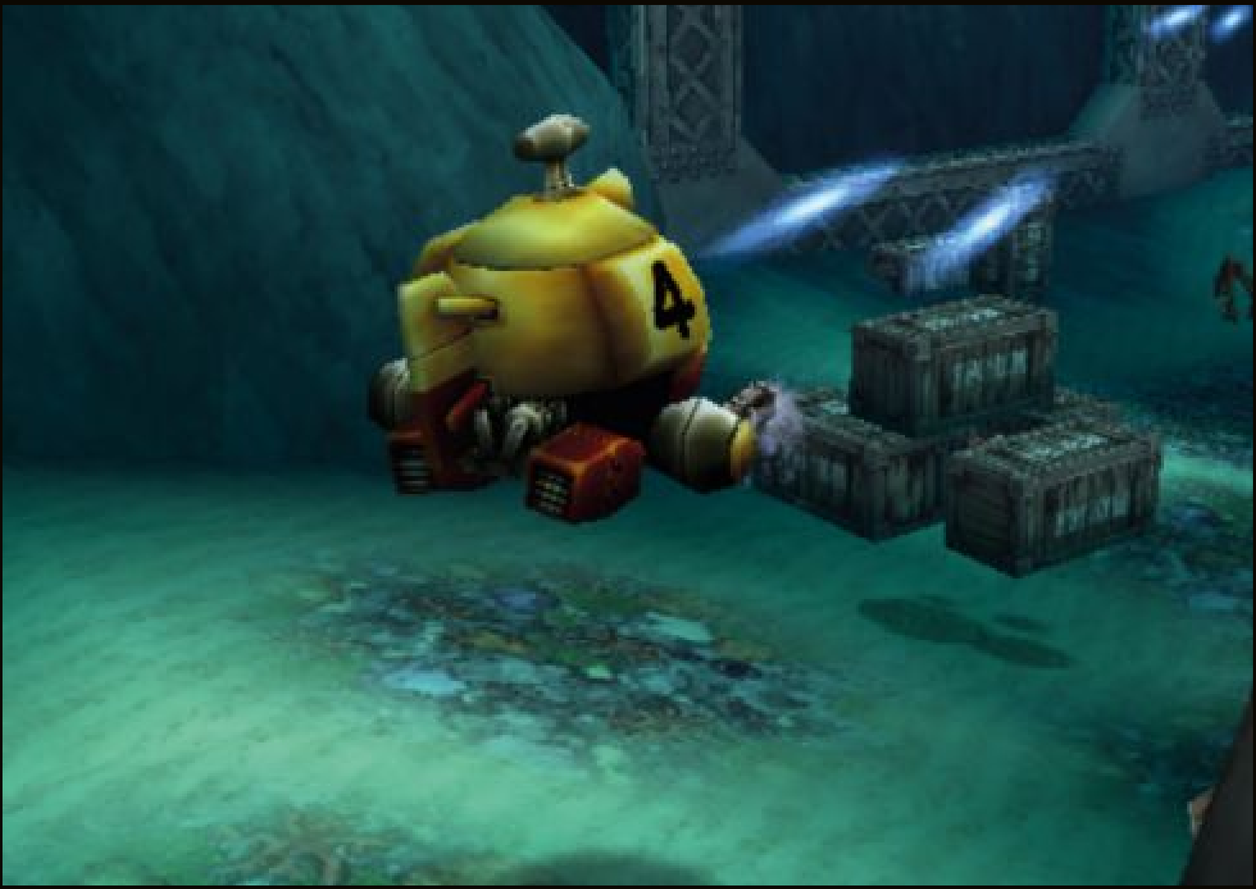
Mixing up the gameplay are some impressive 3D sections where you can ride the SV-001. You can also upgrade your tank by improving the chassis, tread, cannon, Vulcan cannons and armour in the laboratory.



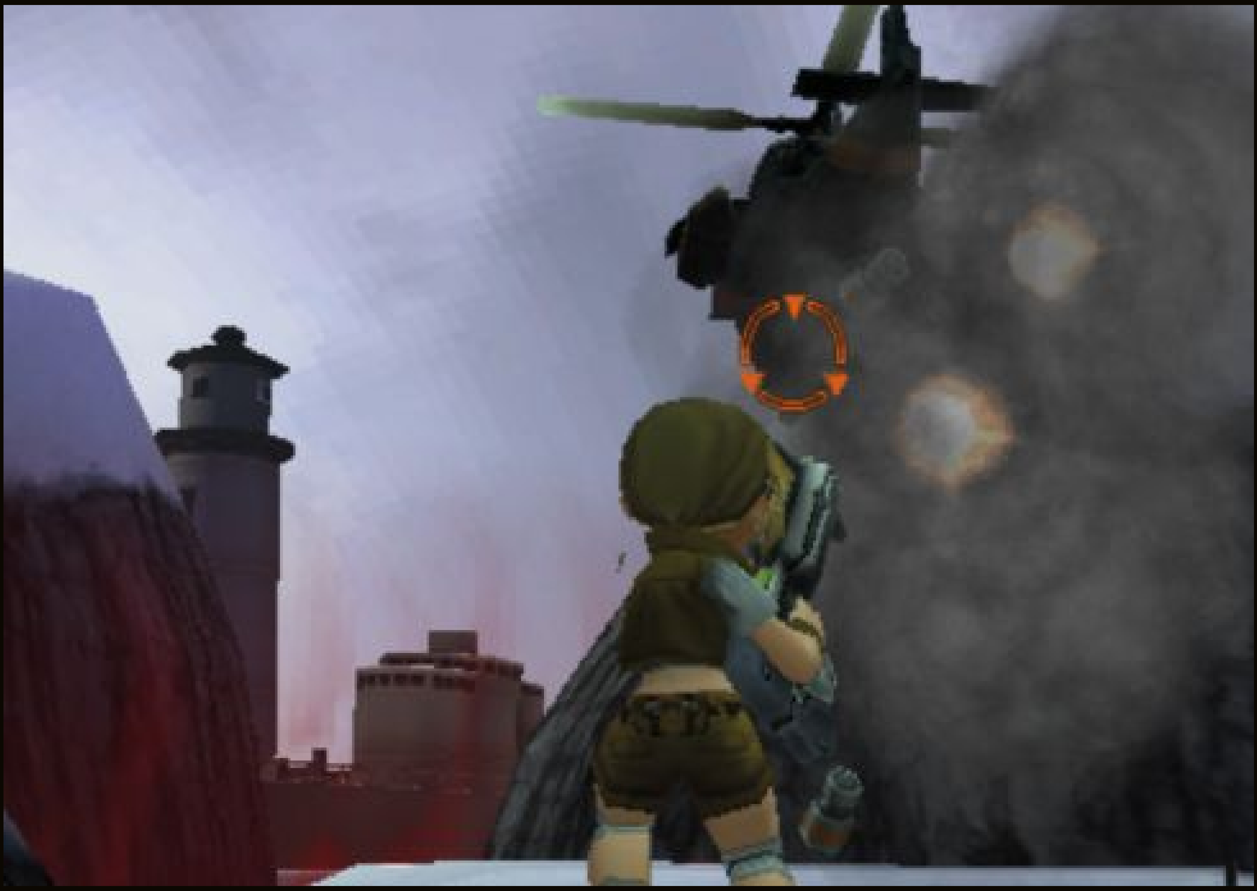
For the first time in a Metal Slug game, a sniper rifle is available as a weapon. This is perfect for picking off enemy soldiers from a safe distance, but isn't much use against armoured vehicles.



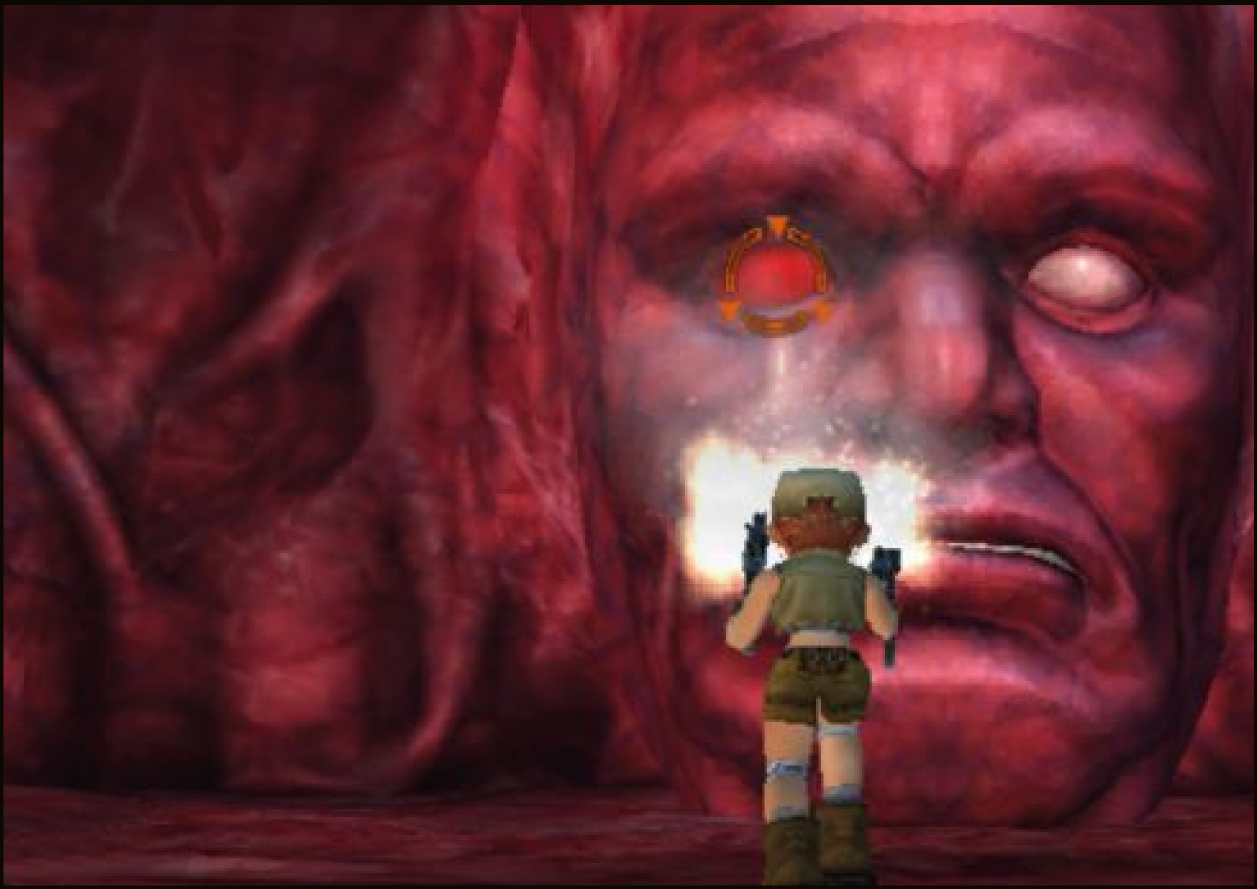
Another Metal Slug favourite, the Slug Flyer makes an appearance in *Metal Slug 3D*. Available on just a single mission, it's a challenge to control, manage the camera angle and aim accurately at the same time.



As with the Slug Flyer, the Slug Mariner is tricky to control and master. In this underwater section you must destroy the enemy submarines, bombs and soldiers while avoiding contact with the floor and walls.



Although a slow weapon to use, the Rocket Launcher is perfect for taking out enemy vehicles, such as tanks and helicopters. Just be aware that this weapon uses manual aiming, which makes it harder to use effectively when you're under attack.



Lieu is the final boss in *Metal Slug 3D*. To win this contest, you must shoot his delicate eyes when they open. Dotted around the room are eyeballs, which makes the whole encounter rather unnerving!

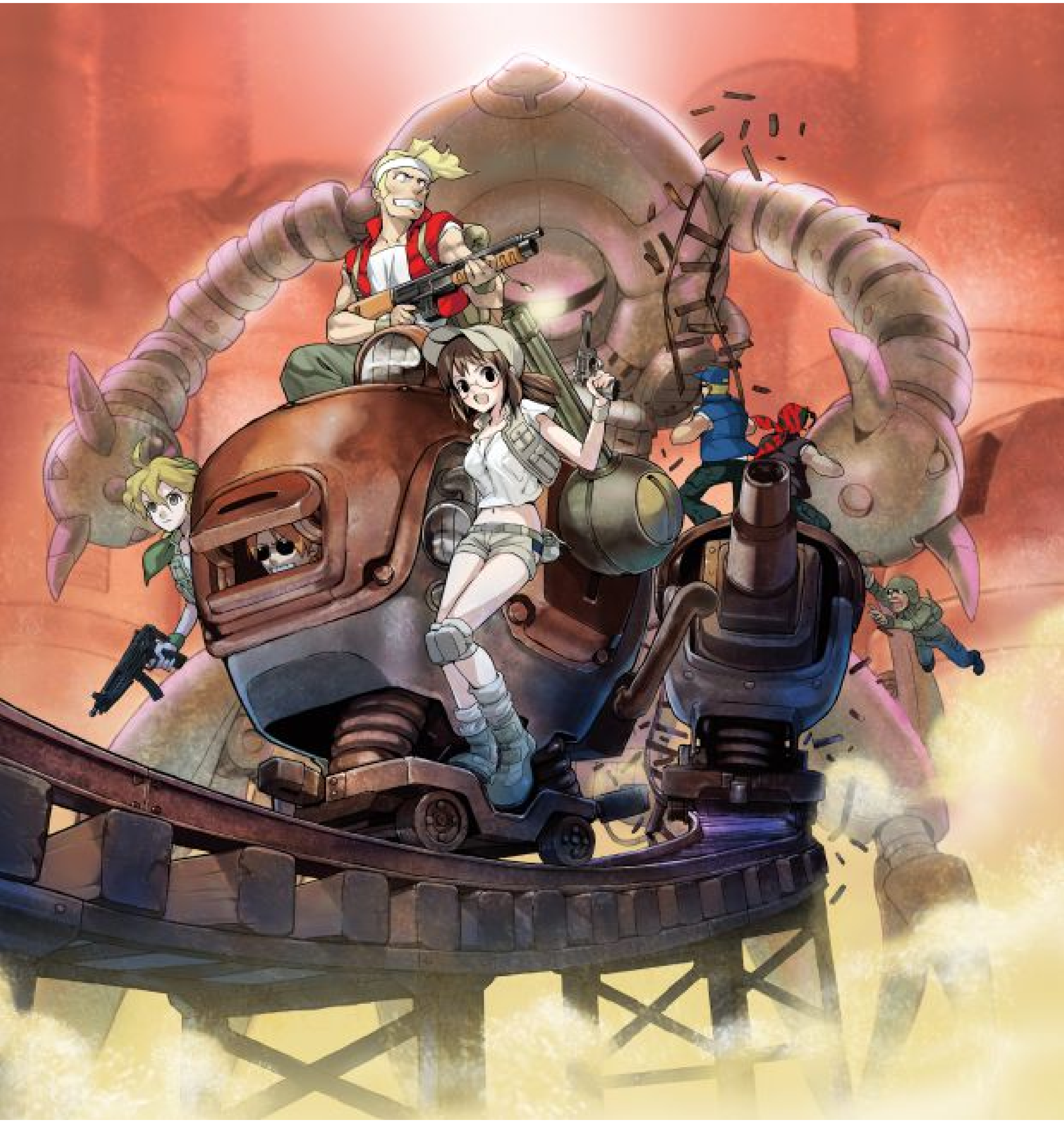
First released: 2008 / Players: 1 / Developed by: SNK / Published by: SNK

METAL
SLUG
7
MS07

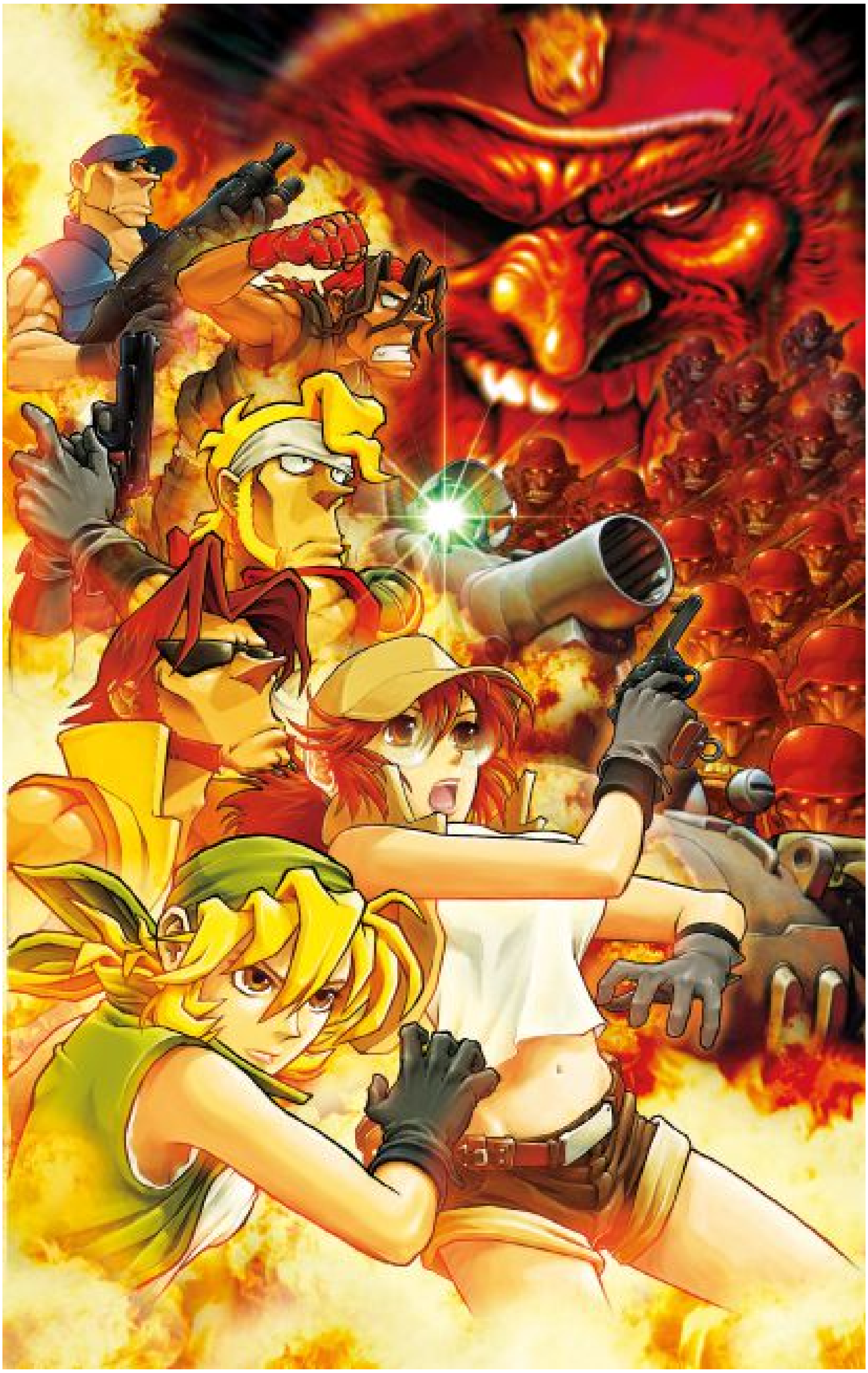
DS

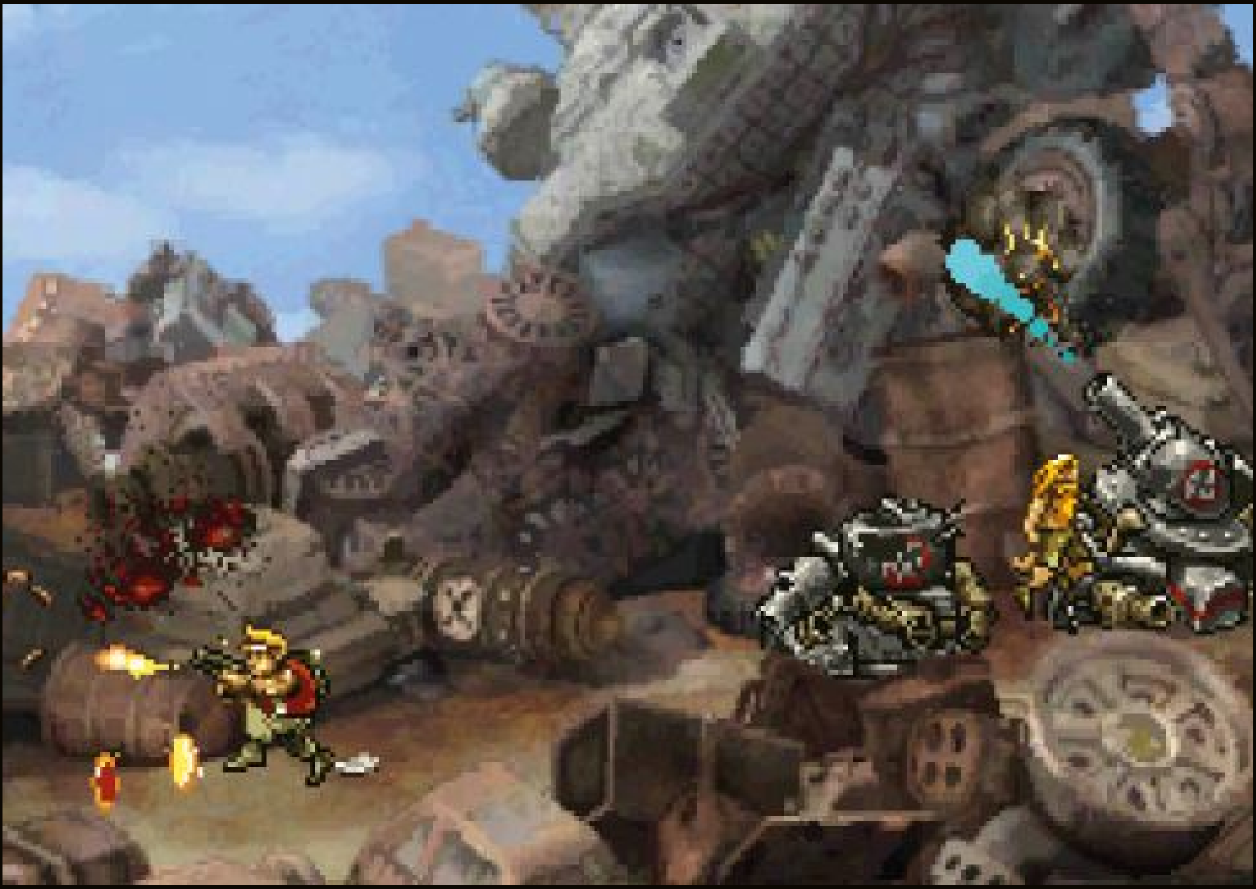
This is the only mainline entry in the Metal Slug series to have been developed exclusively for a non-arcade platform. *Metal Slug 7* hit the Nintendo DS in 2008, and featured the same six heroes that were present in the sixth game, along with the same special abilities, which made them all unique in terms of gameplay. The console's unique dual-screen functionality allowed for a map to be displayed during play, enabling players to pinpoint the location of items and POWs. A year after its release, *Metal Slug 7* was ported to the Sony PSP and renamed *Metal Slug XX*. It benefited from improved visuals, as well as local and online multiplayer, new enemies, hidden routes, and much more besides.

Box artwork for the Japanese release of *Metal Slug 7* for the Nintendo DS. The Western release features a very similar piece of art, but has been slightly redrawn and uses a bolder, darker colour palette.

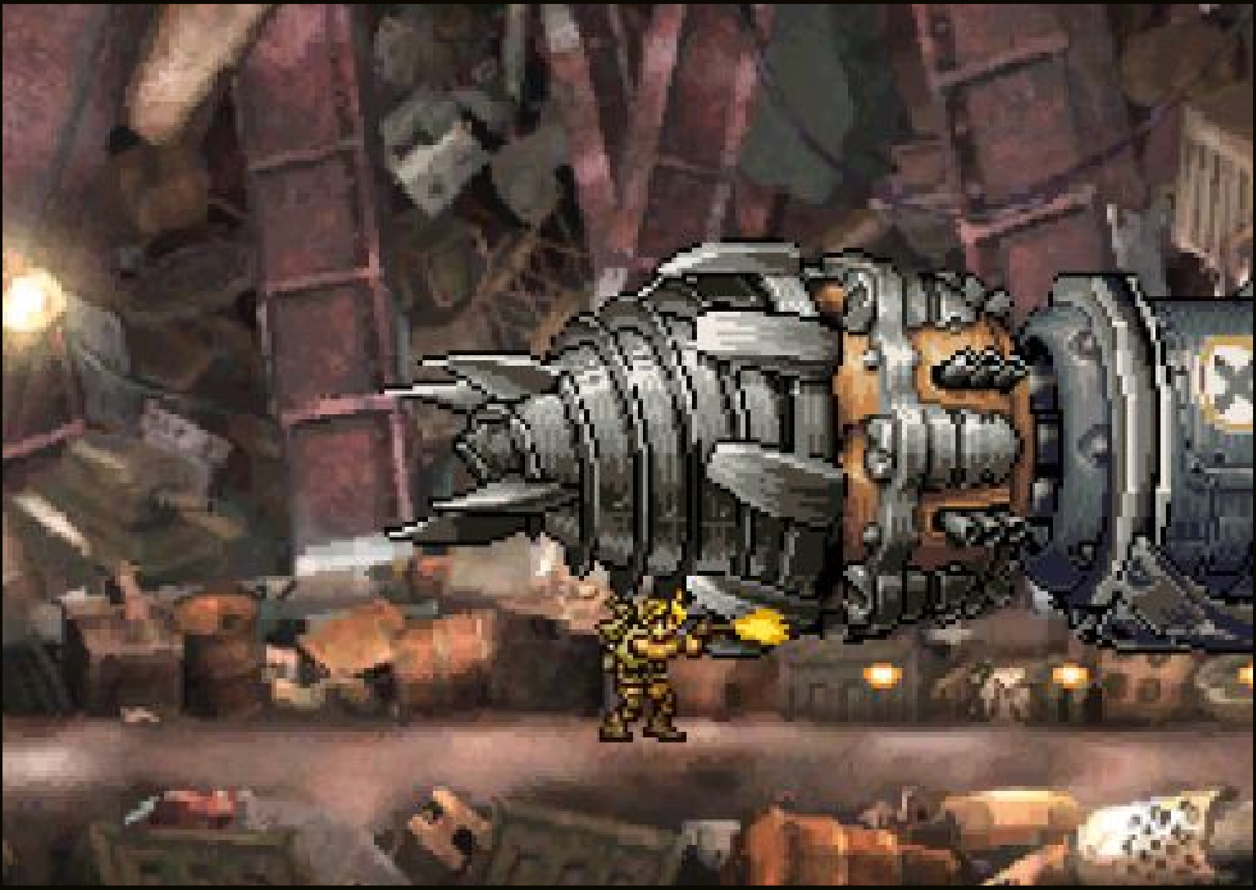


The year after *Metal Slug 7* was released on the Nintendo DS, a new edition was launched on the Sony PSP called *Metal Slug XX*. It showcased new cover art – shown below – as well as improved graphics and additional features.

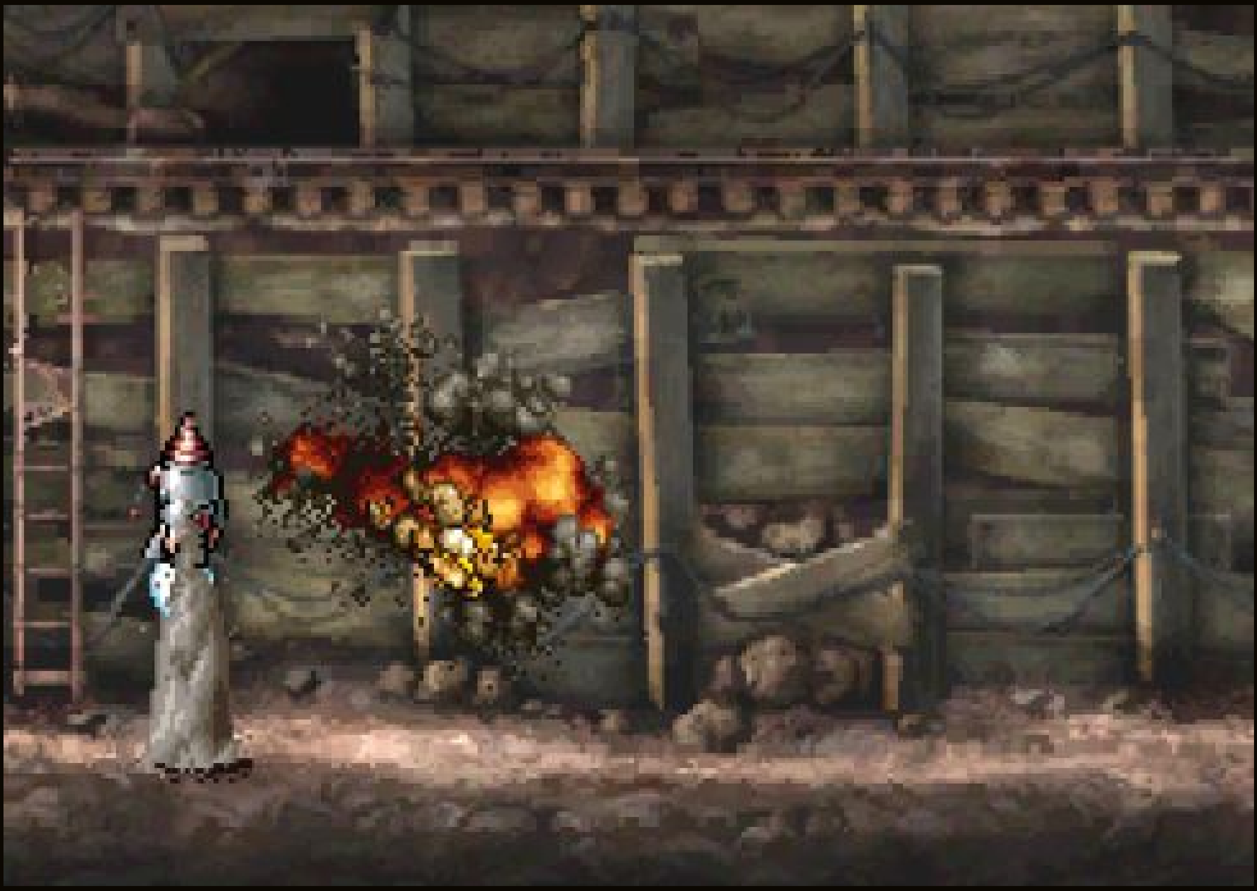




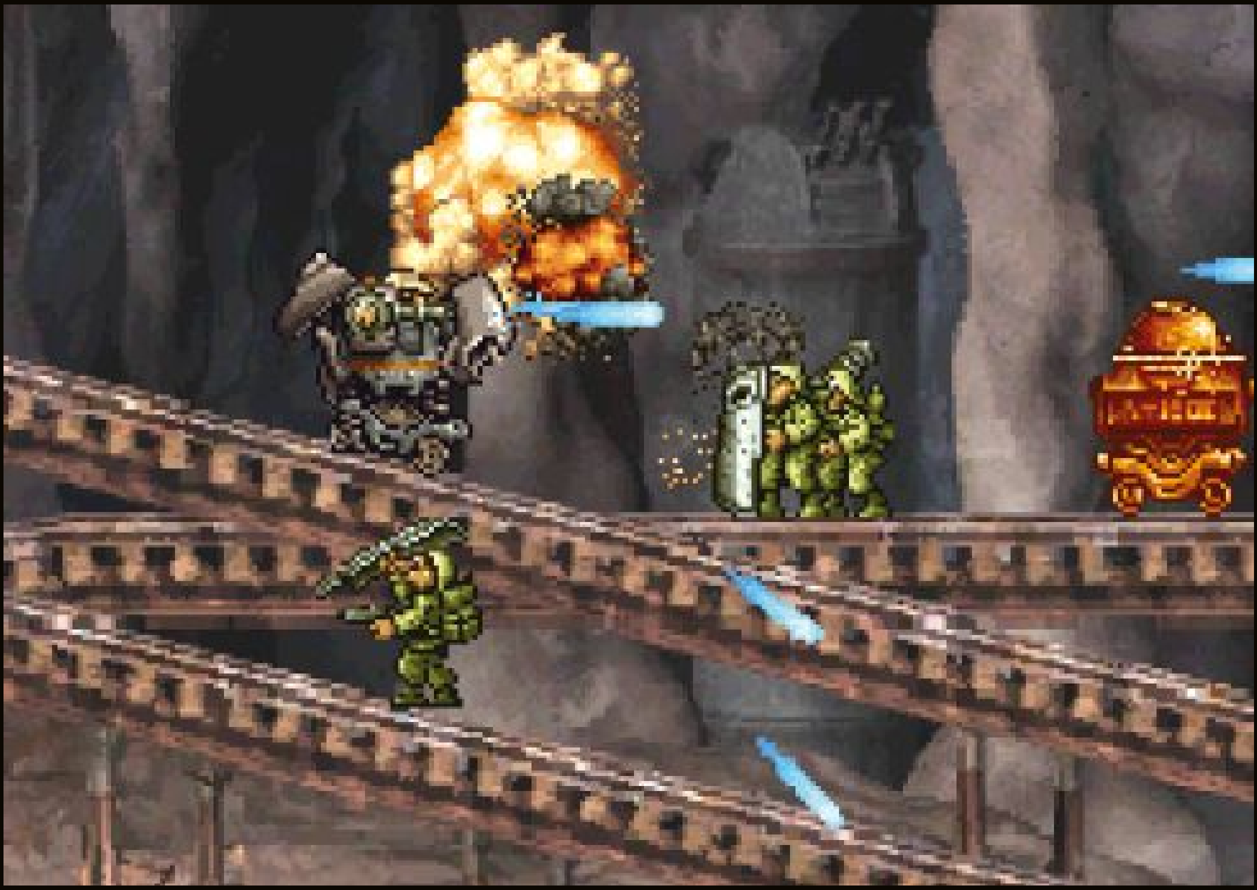
Metal Slug 7 makes great use of the Nintendo DS's dual screens. The lower display is home to the level map with the location of power-ups and POWs, while the top screen showcases the actual gameplay.



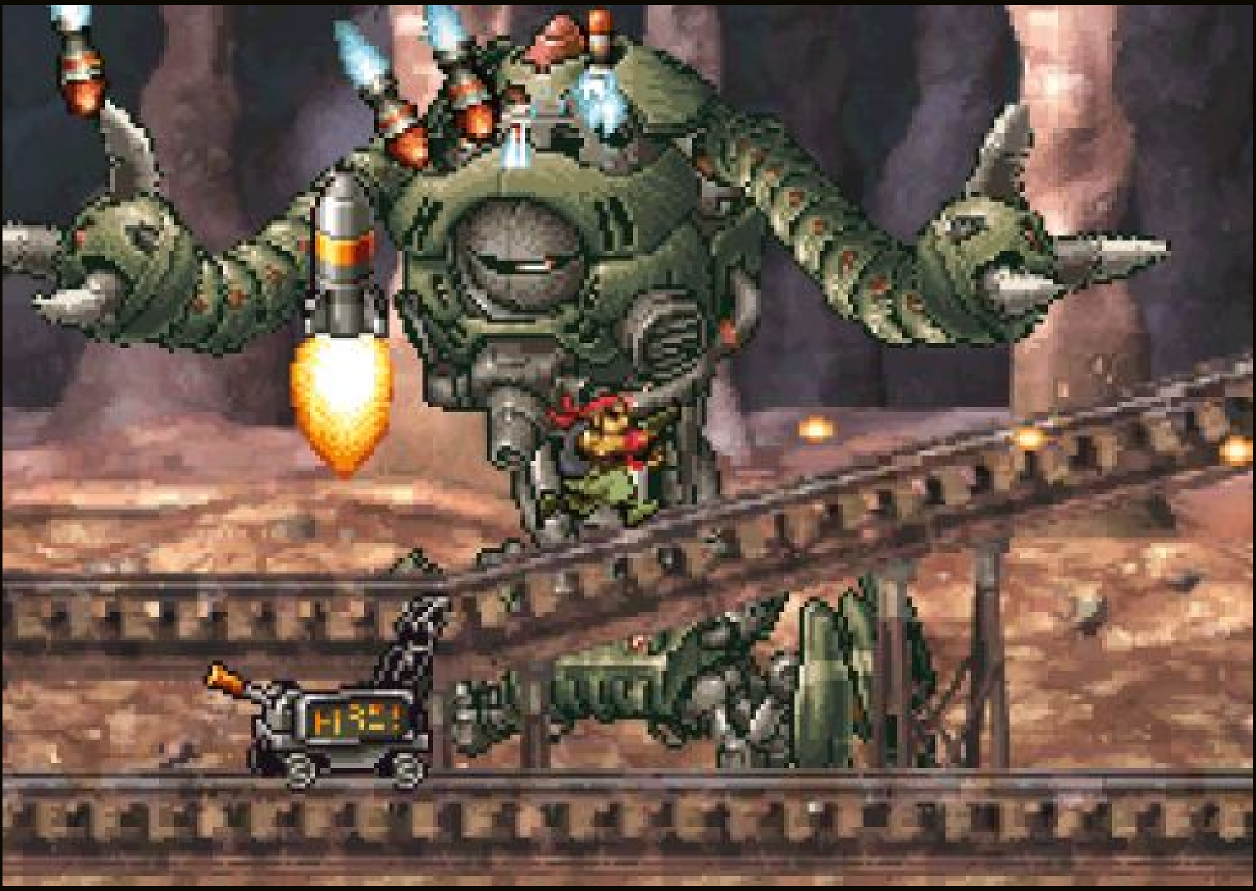
At the end of the first mission, you come up against a huge snake-like drilling machine called Worm Mecha. Controlled by General Morden himself, it can tunnel underground and quickly rise back up, right beneath where you're standing.



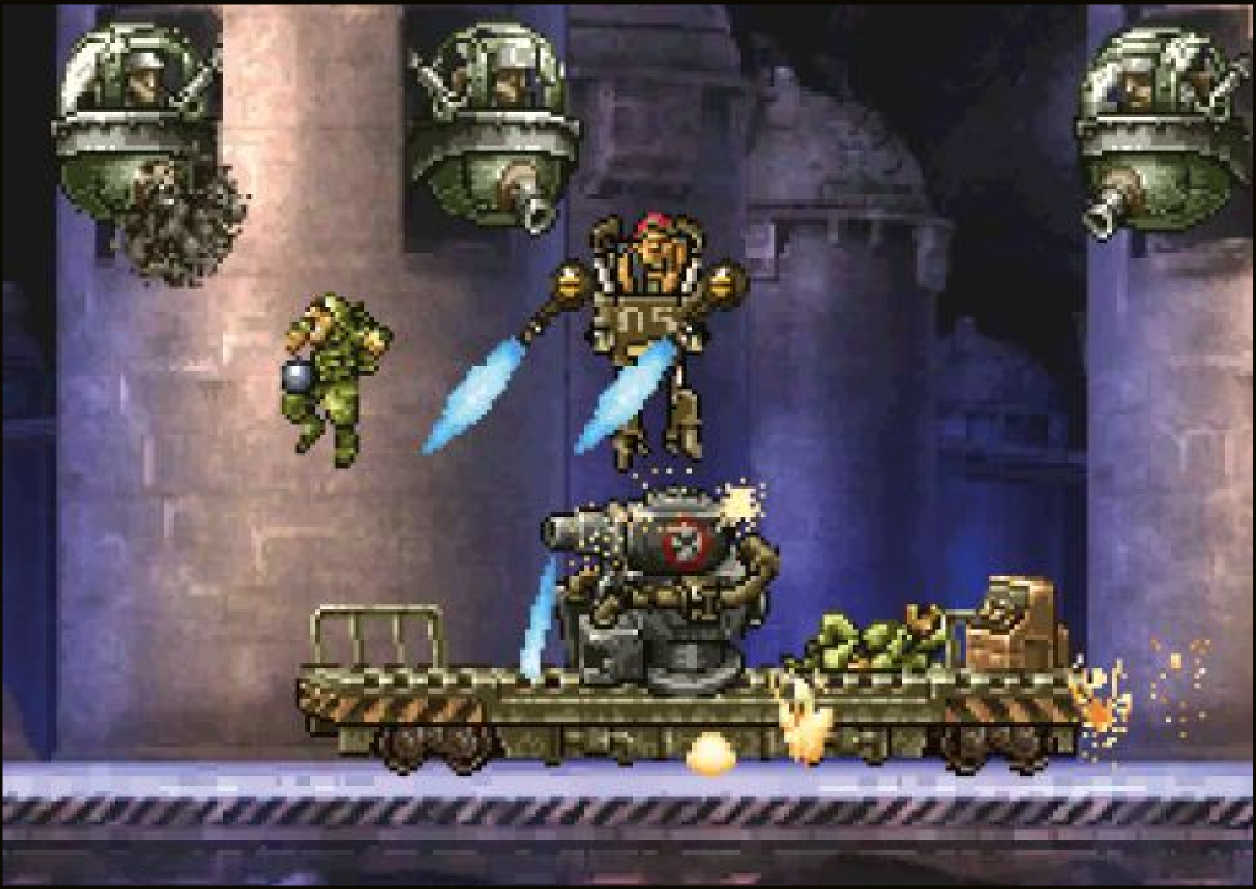
Similar in appearance to the Iron Lizard – first seen in *Metal Slug 6* – the Metal Mole is a remotely controlled drone. It attacks with explosives and is also capable of drilling a hole, into which you can fall and get stuck.



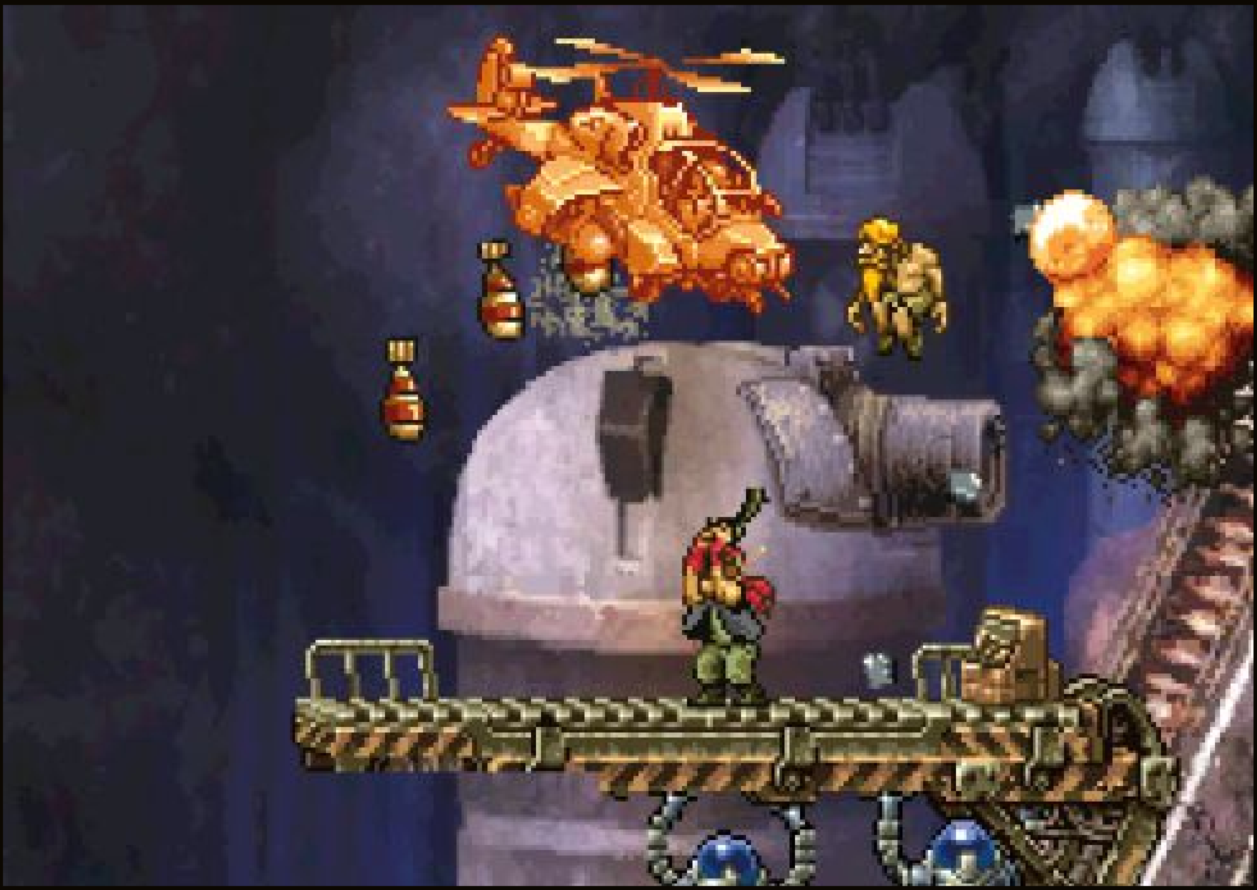
The Slug Trolley is a cart that can be used in the Coal Mine level. It's armed with a Vulcan and grenades, and can be attached to other carts, each one with its own armoury of weapons.



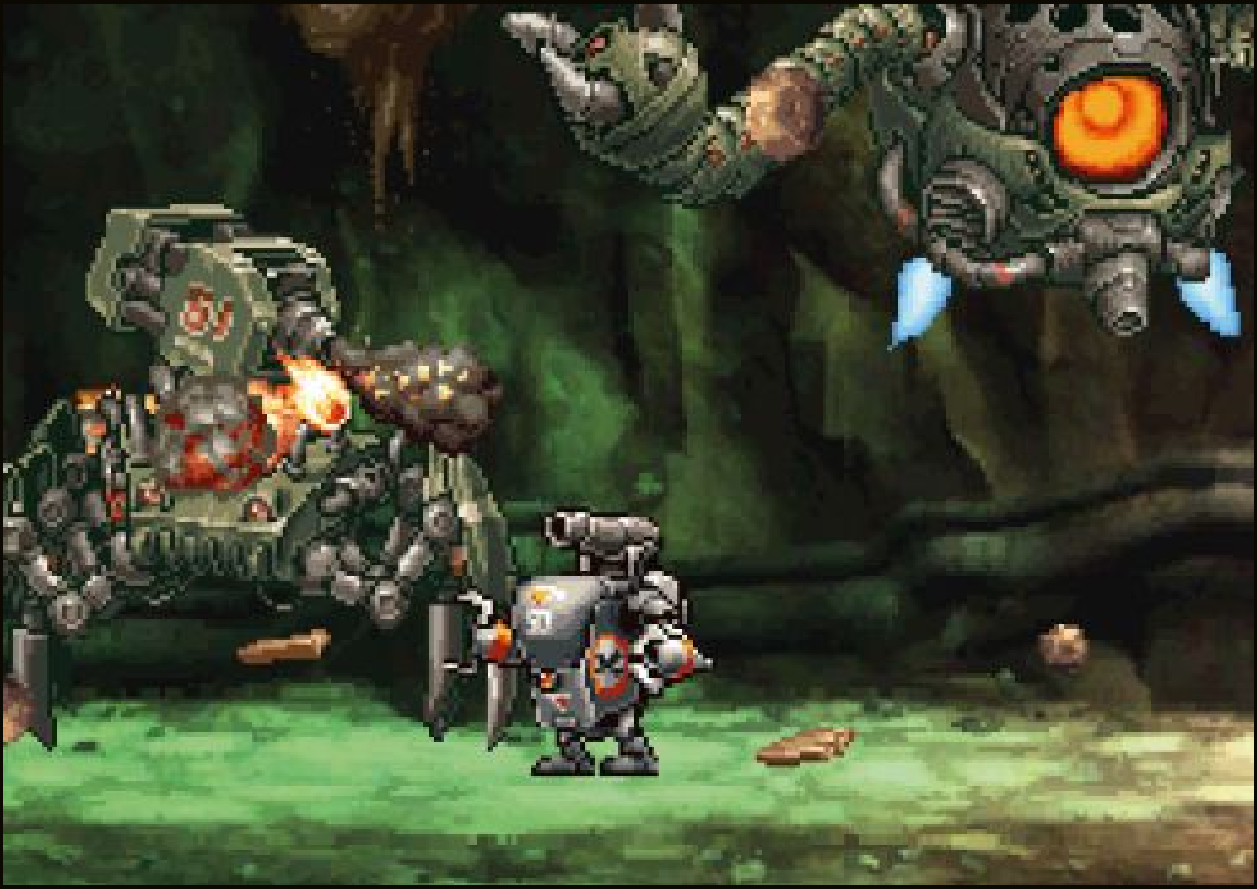
Crablops appears twice as a boss in *Metal Slug 7/XX*; the first encounter comes in the second mission, where it throws rocks at you, in addition to firing rockets. In the second battle, its body splits into two and fires Metal Moles.



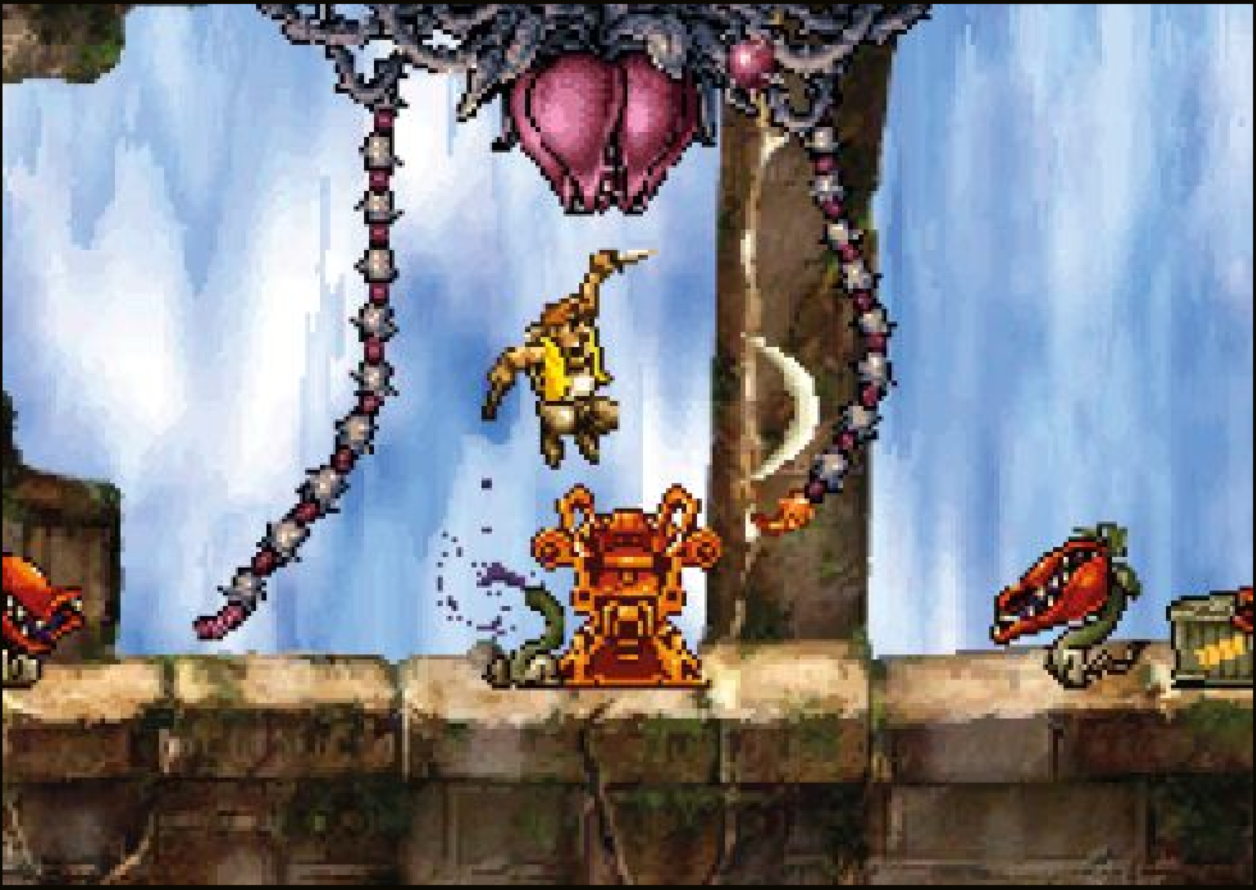
A series favourite, the Slugnoid makes an appearance in *Metal Slug 7/XX*. Here it can be seen fighting various turret enemies, such as floor-mounted Scrap Cannons and Rebel Soldier-controlled HU Guns positioned high up on the walls.



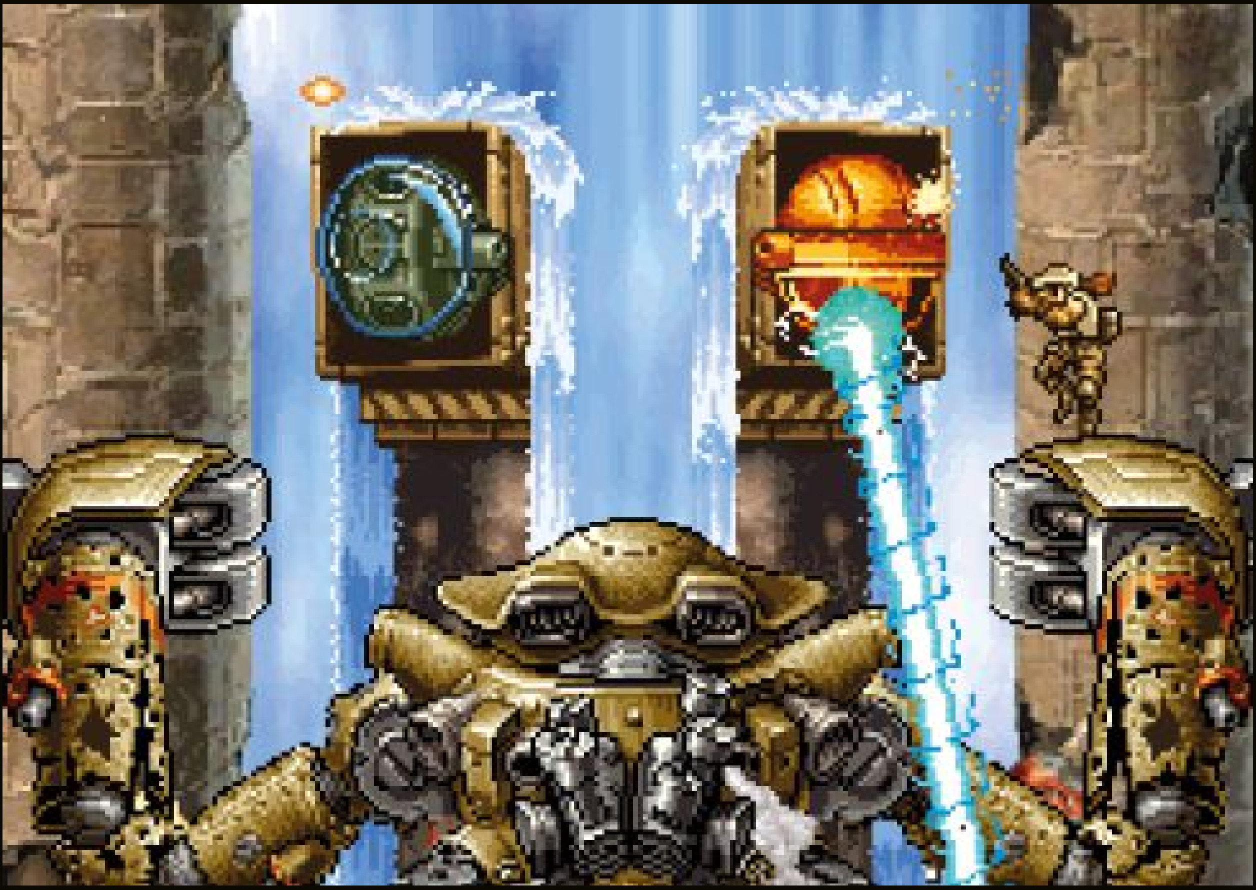
On your way to the second battle with Crablops, you ascend through the level on this handy elevator. A series of drones, soldiers and turrets gamely attempt to halt your progress.



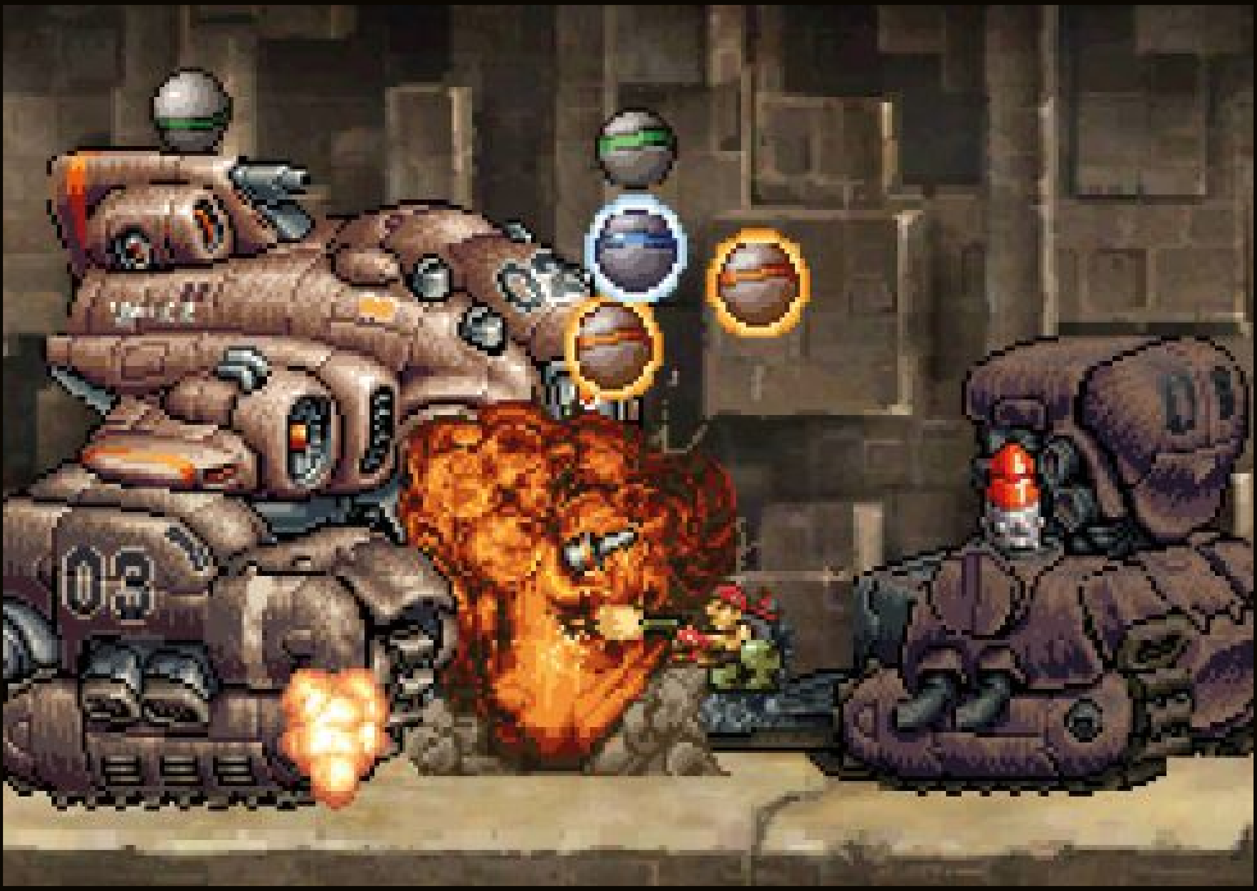
During the second battle with Crablops, its body splits into two sections. The lower half is mounted on a huge cannon firing Metal Moles, with Rebel Soldiers emerging from the base. The reinforced Slug Armour is a very welcome vehicle for this testing battle.



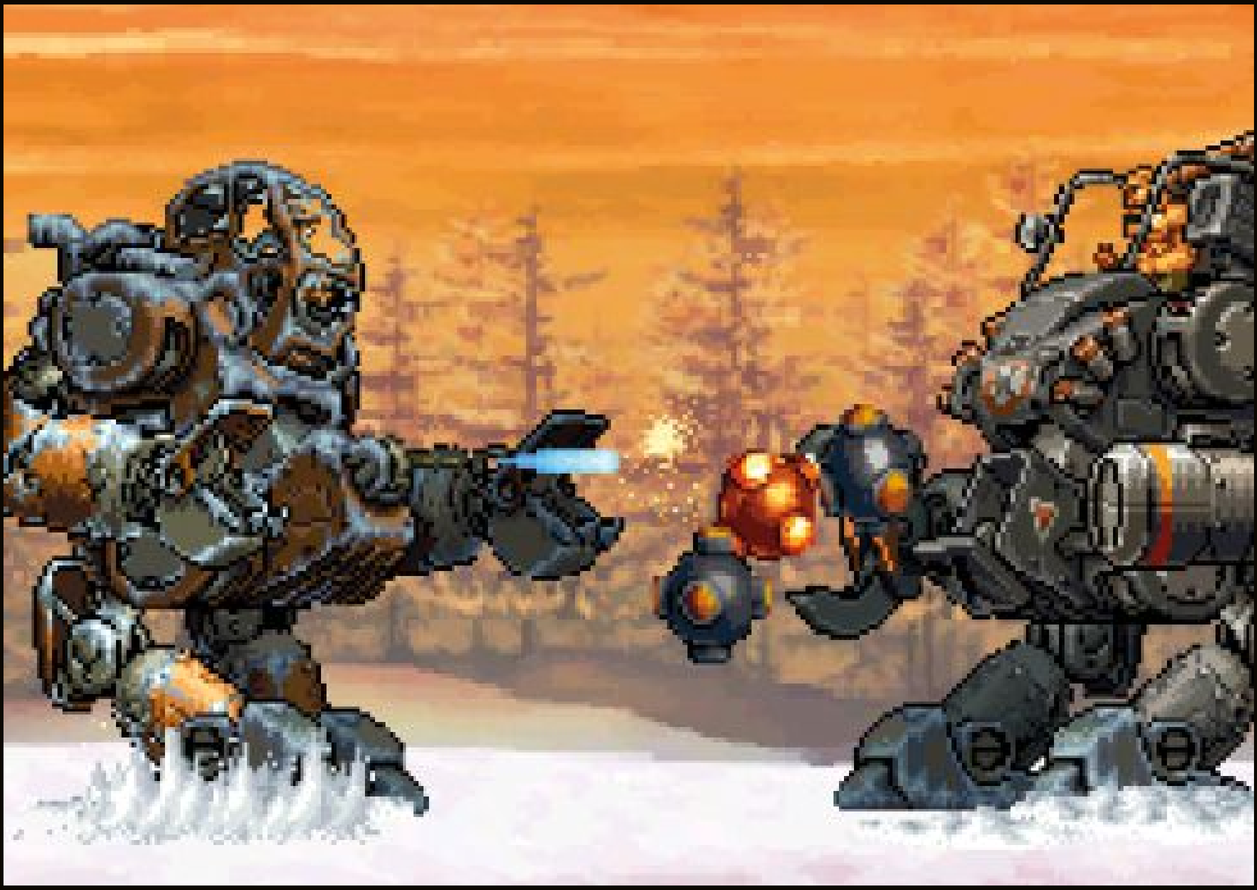
As previously seen in *Metal Slug 3*, the Man Eater plants can be found throughout the fourth mission. New to *Metal Slug 7/XX* is the 'Huge Ivy' that hangs from the ceiling. Be sure to keep your distance and stay well away from its roaming tentacles.



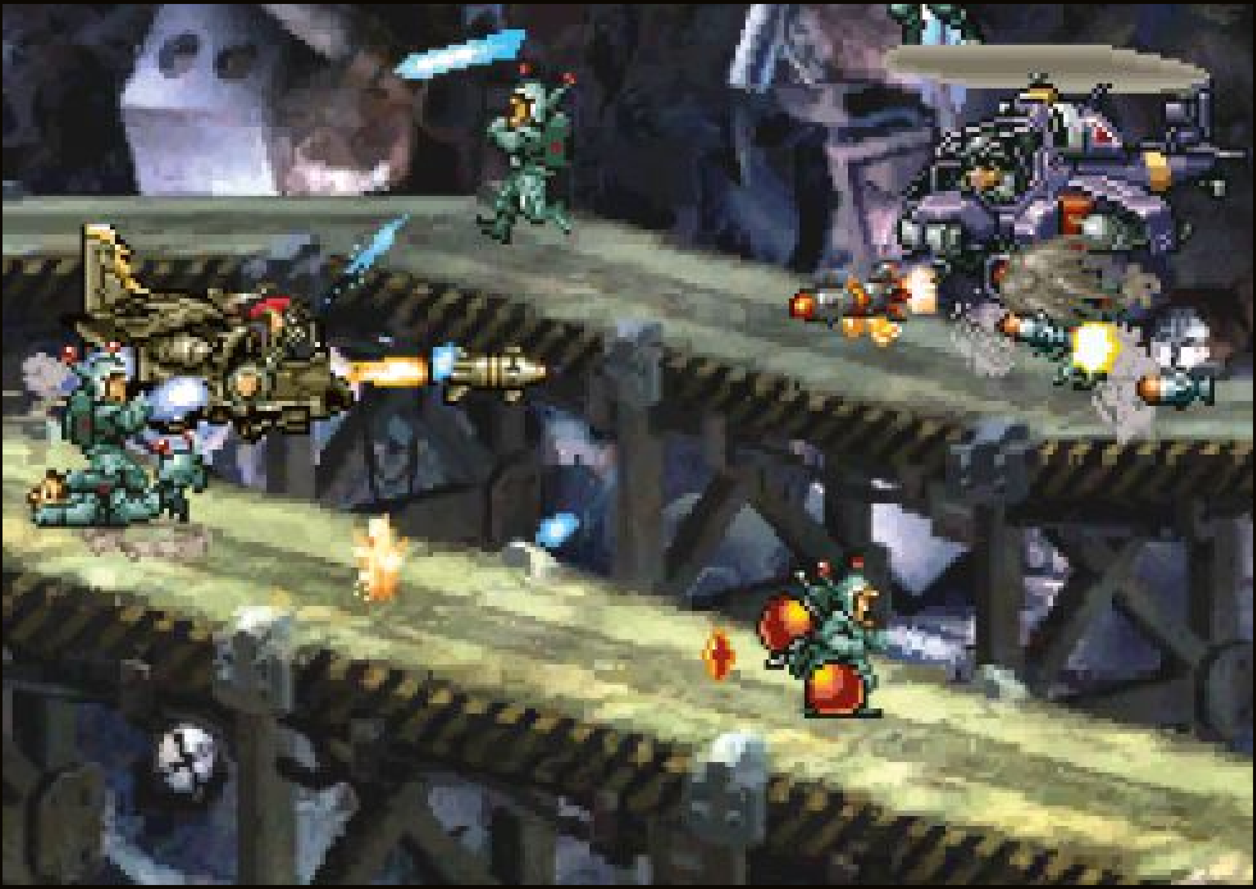
Reminiscent of the fifth stage boss from Irem's *In the Hunt*, the Fall Mecha climbs up the waterfall using its huge mechanical arms. Once defeated, it discharges a giant beam of pink light that, rather helpfully, transports you to the top of the cliff.



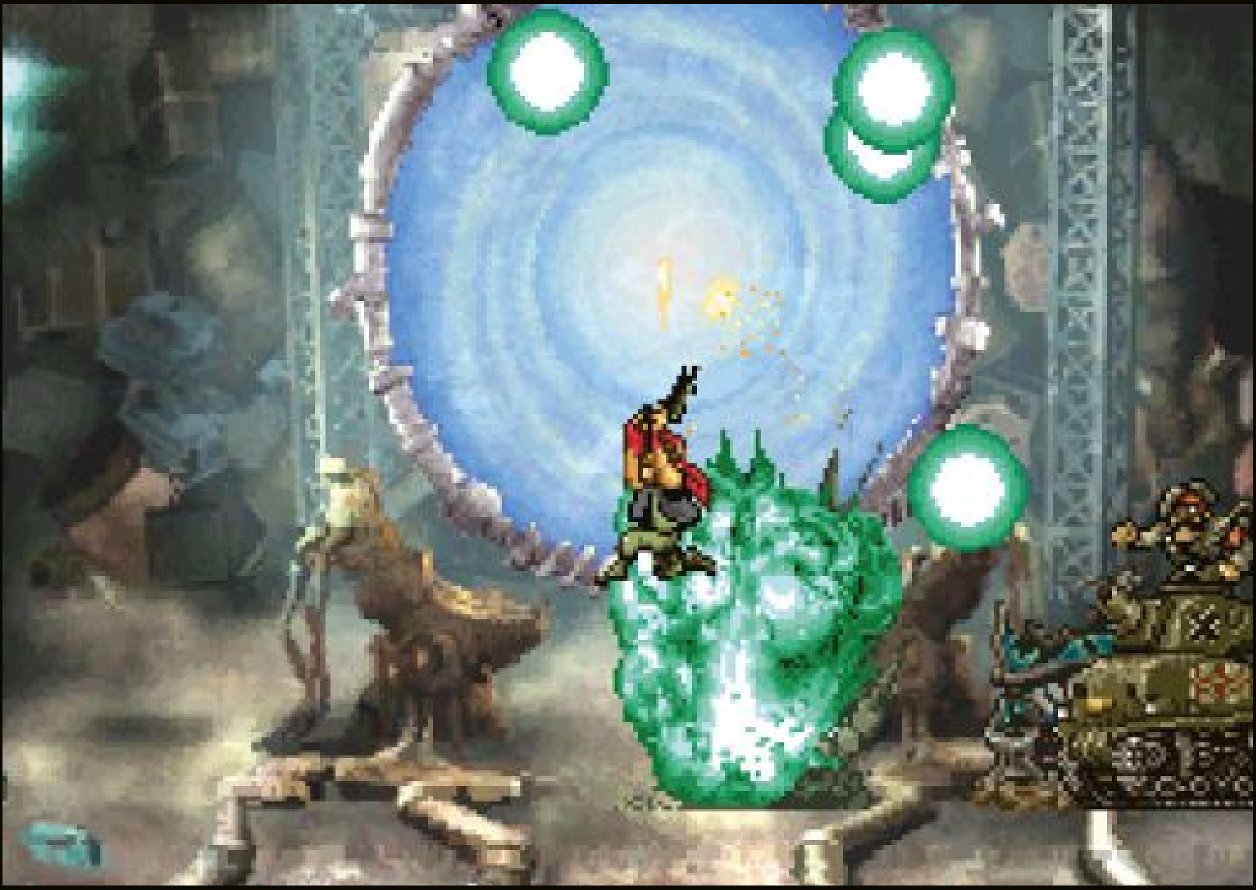
At the end of the fifth mission, you come up against 'Union': a set of three units that combine to form one giant tank. Each unit is defeated by aiming for its red eye, the only weak spot.



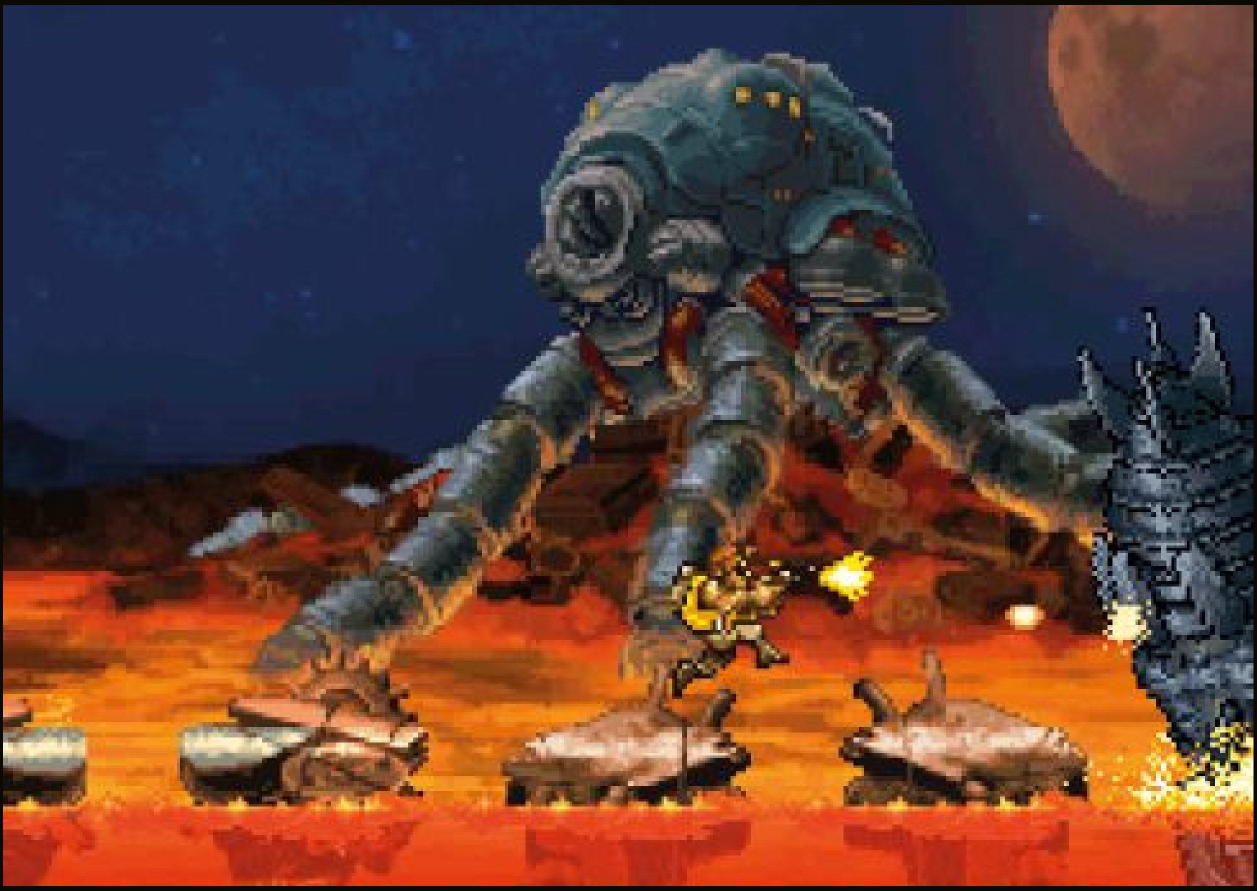
One of the biggest Slugs in the Metal Slug series, the Slug Gigant is a massive robot armed with powerful shock wave and Vulcan attacks. At the end of the sixth mission, you come up against the Rebel Gigant, piloted by recurring villain Allen O'Neil.



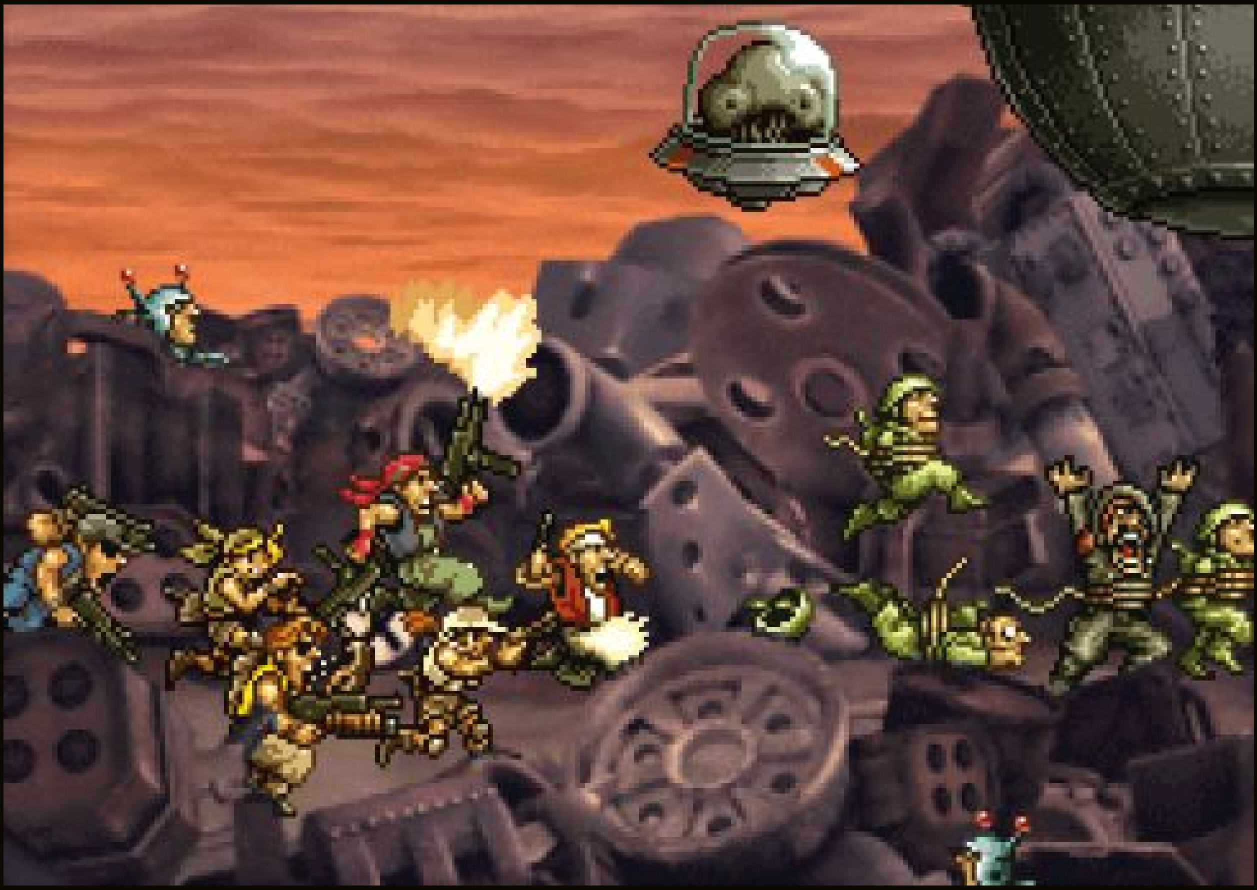
Within the Rebel Headquarters is where you first encounter the Future Rebel Soldiers. Similar in design to regular Rebel Soldiers, they are clad in space suits and armed with futuristic weapons, such as bazookas that fire an energy blast instead of bombs.



During the Final Mission you come up against the mini-boss Big Gate. This strange portal fires large green projectiles, while the sneaky Morden sits in his tank at the side of the screen, laughing at your plight.

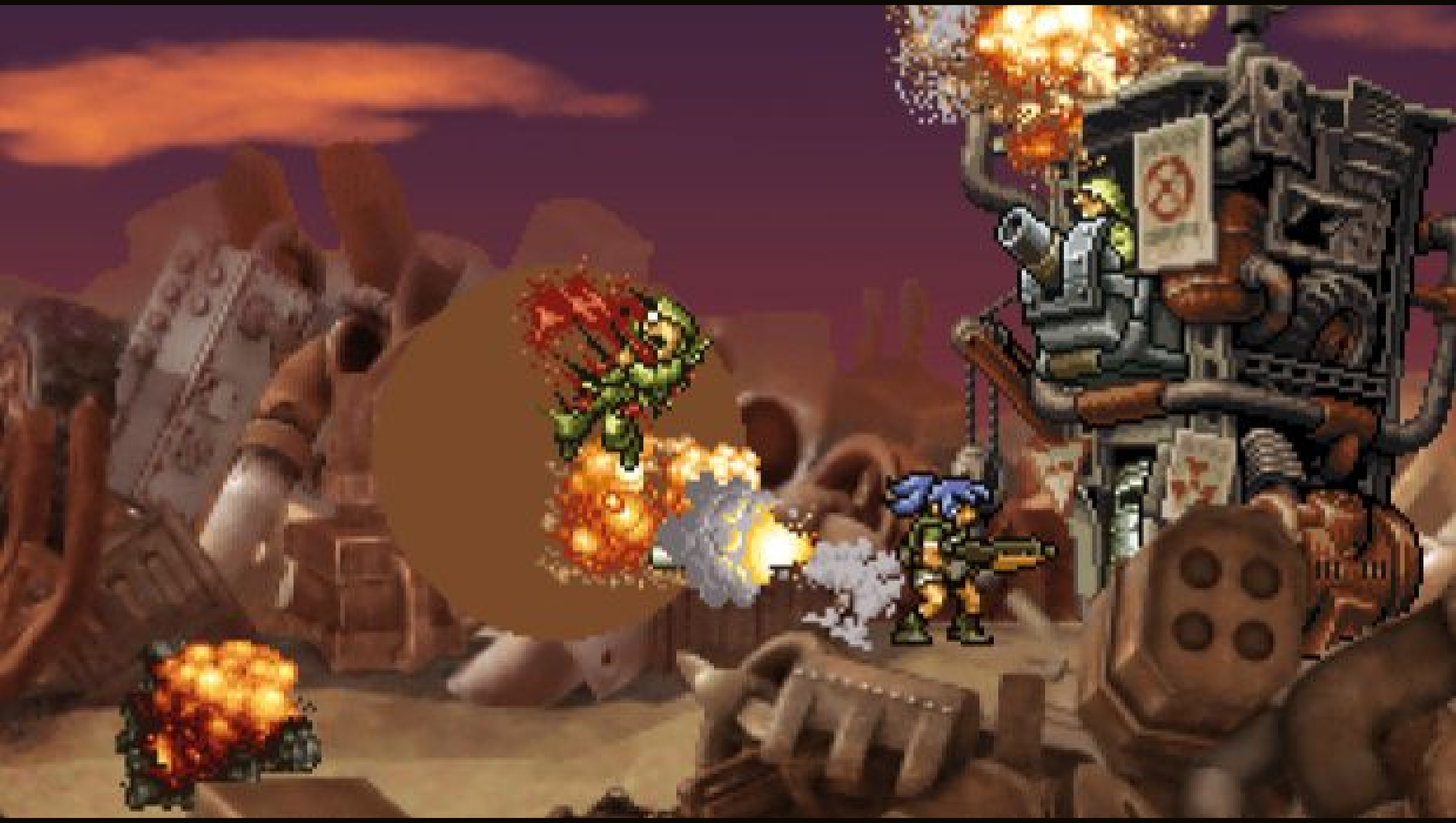


The Kraken is the final boss in *Metal Slug 7/XX*, which you encounter inside a volcano crater. Able to go above and beneath the lava, its varied and deadly attacks include dropping magma boulders and hitting you with its huge mechanical tentacles.

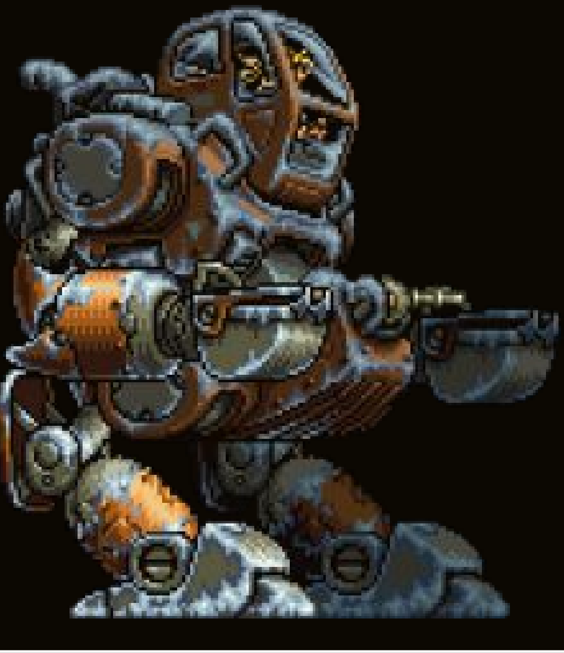


This humorous ending image shows the main six characters chasing a defeated Morden and his entourage through a scrapyard. Victory is yours!

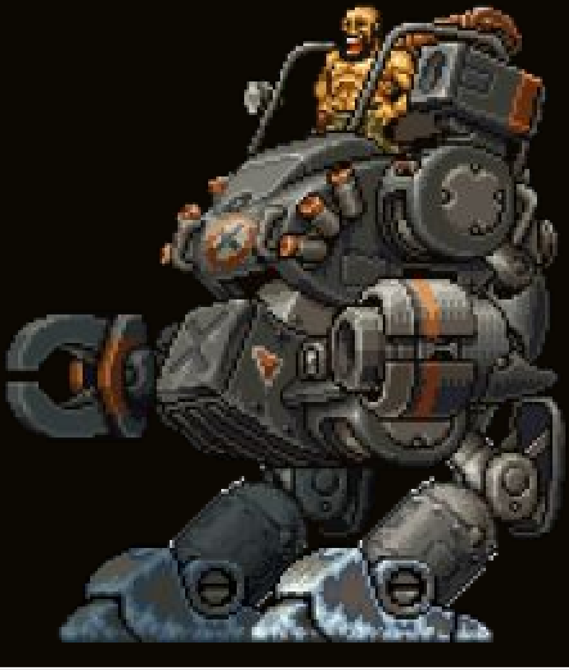
Metal Slug XX features an extra playable character, made available via paid DLC. Recognisable, thanks to her striking blue hair, Leona Heidern previously appeared in THE KING OF FIGHTERS franchise and is able to take an extra hit when piloting a Slug. She also has a powerful special melee attack called Moon Slasher.



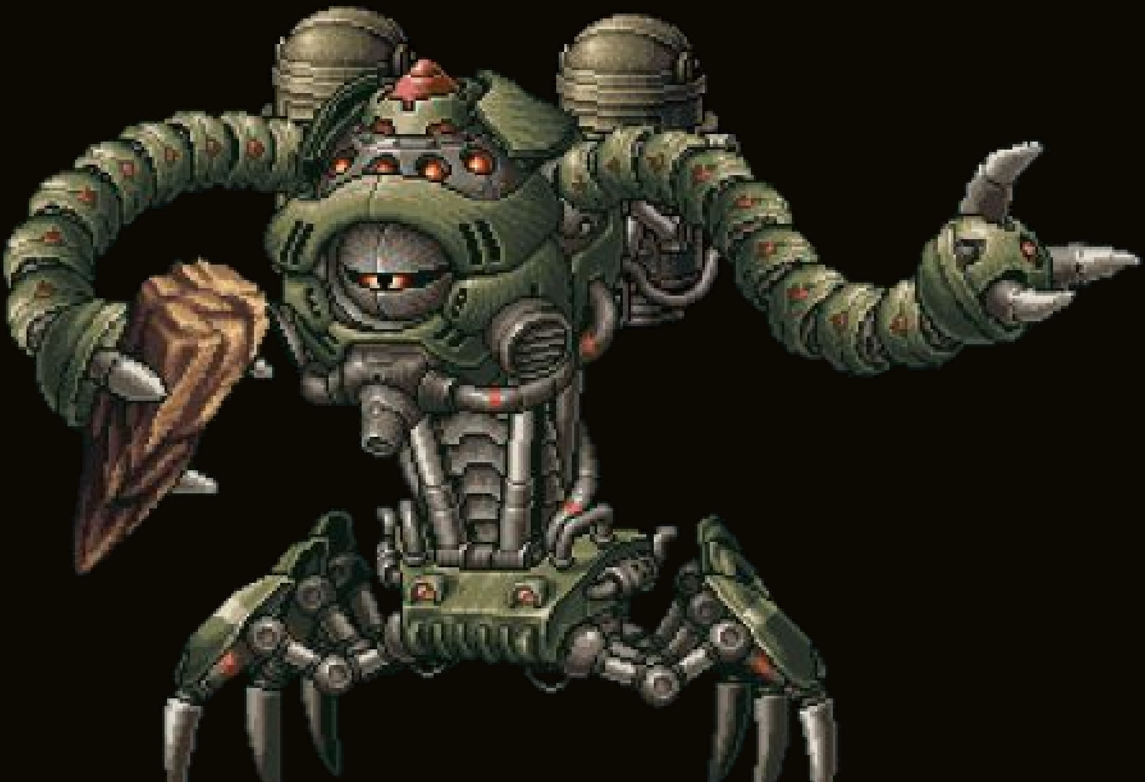
Metal Slug 7/XX features some really original boss designs, including the massive Rebel Gigant mech controlled by Allen O'Neil. Certain moving parts, like the arms of Crablops, use a sprite rotation technique similar to the Mode 7 tricks seen on the Super Nintendo back in the early '90s.



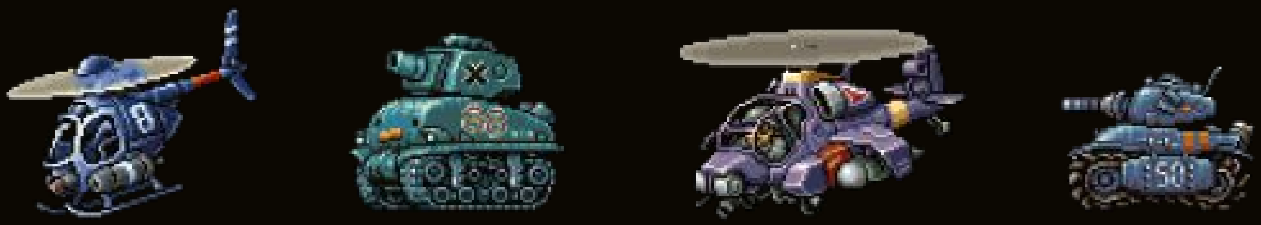
Slug Gigant



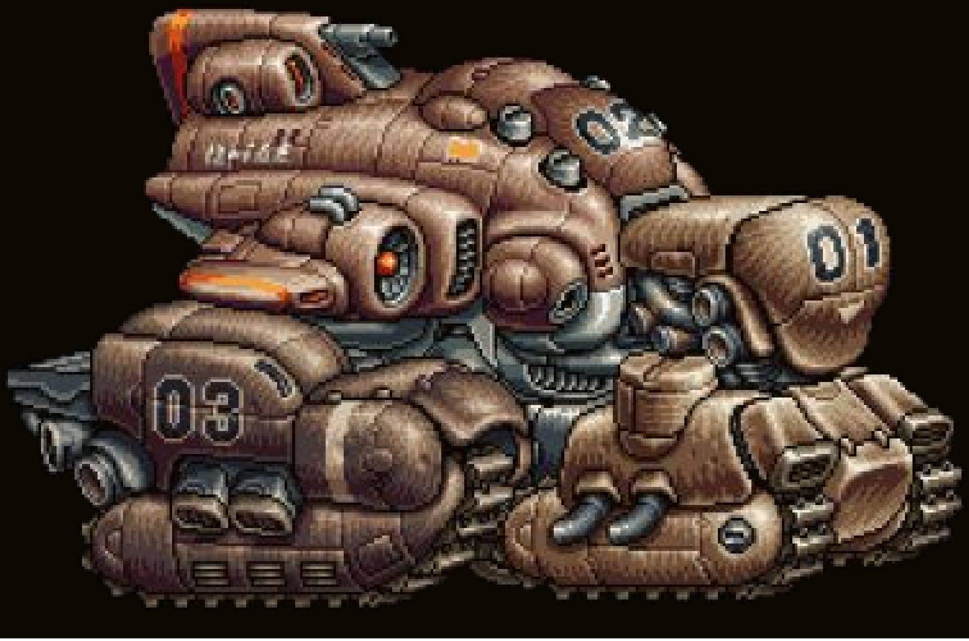
Rebel Gigant (Mission 6 boss)



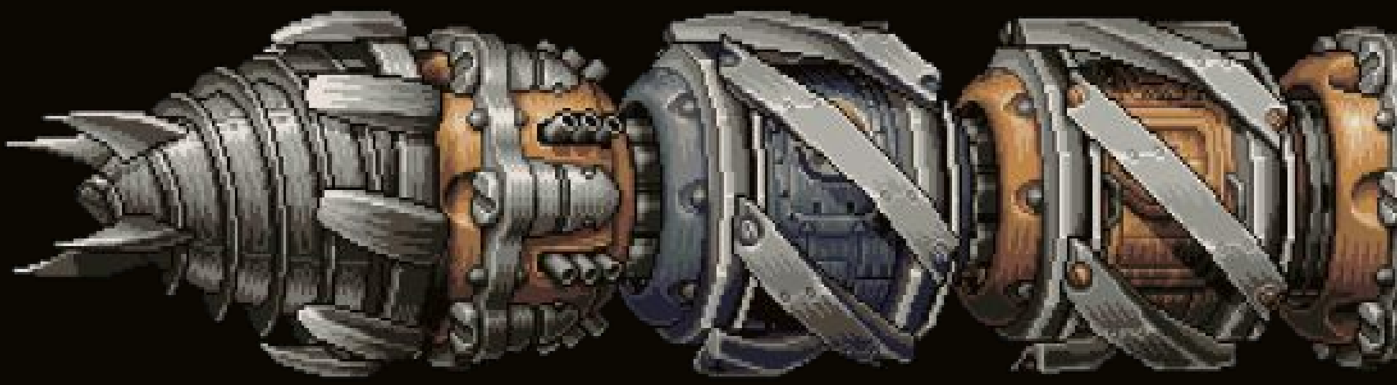
Crablops (Mission 2 and 3 boss)



Left to right: Future MH-6S Masknell, Future Di-Cokka, Future R-Shobu and Future Girida-O

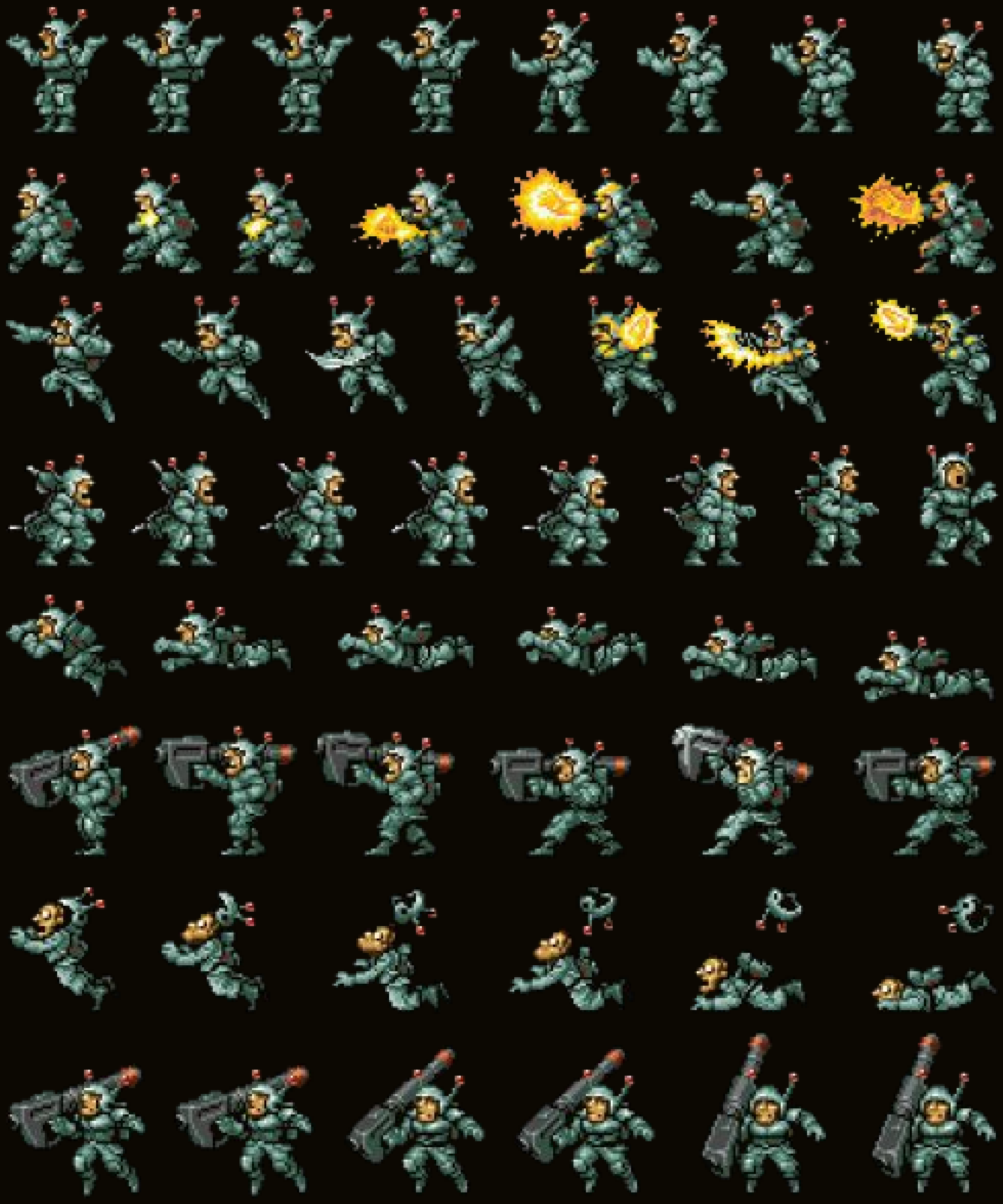


The Union (Mission 5 boss)

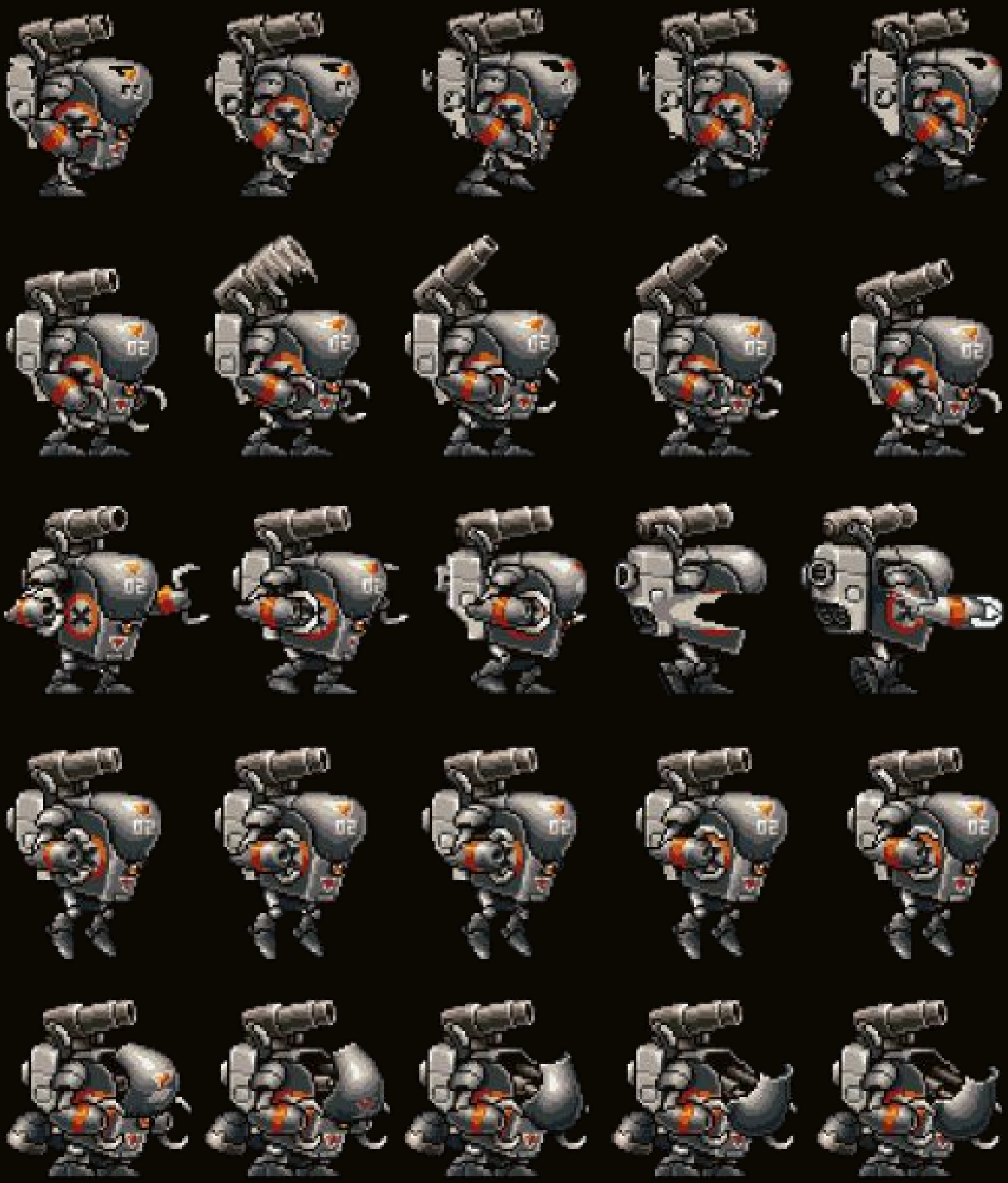


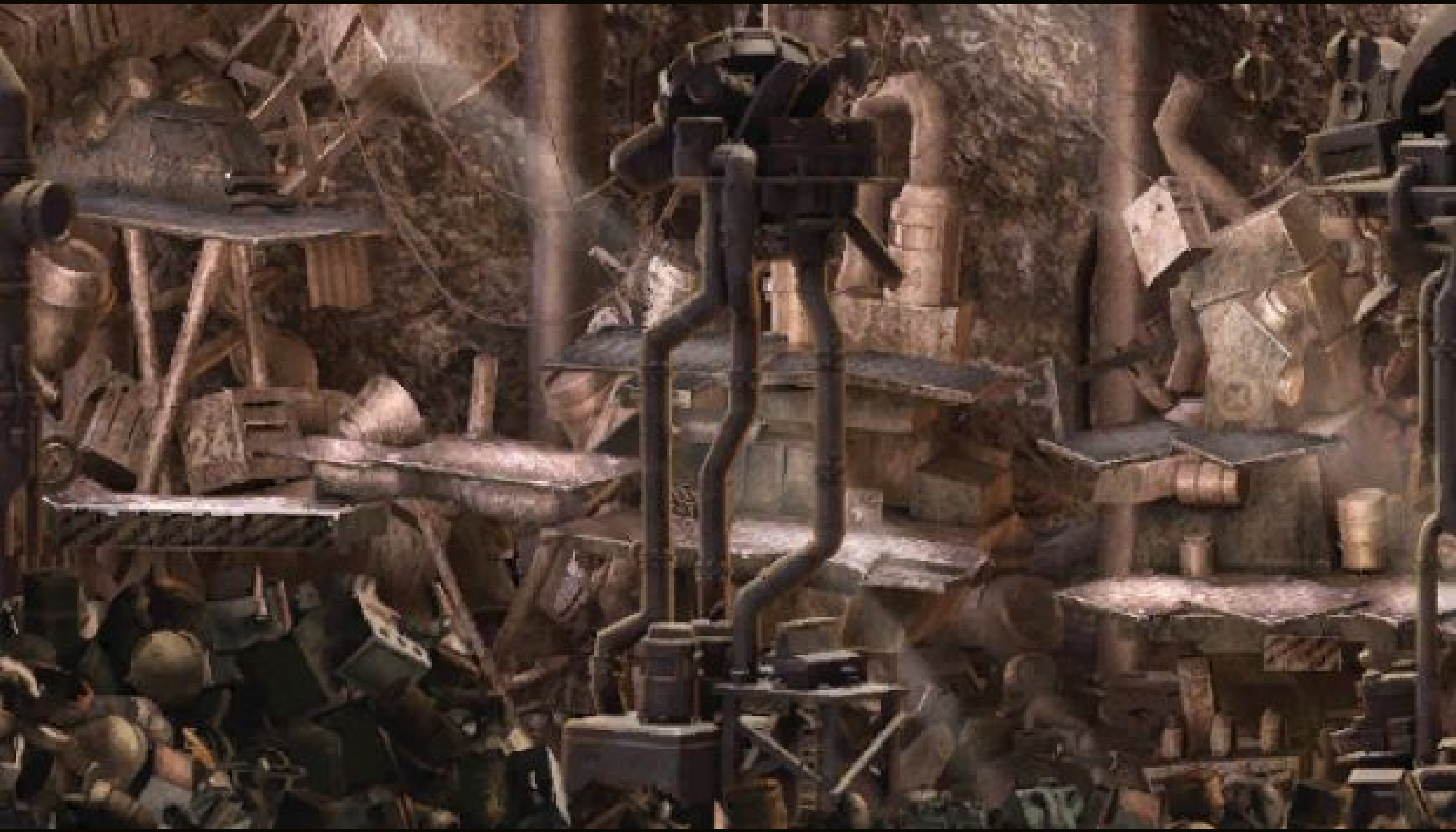
Worm Mecha (Mission 1 boss)

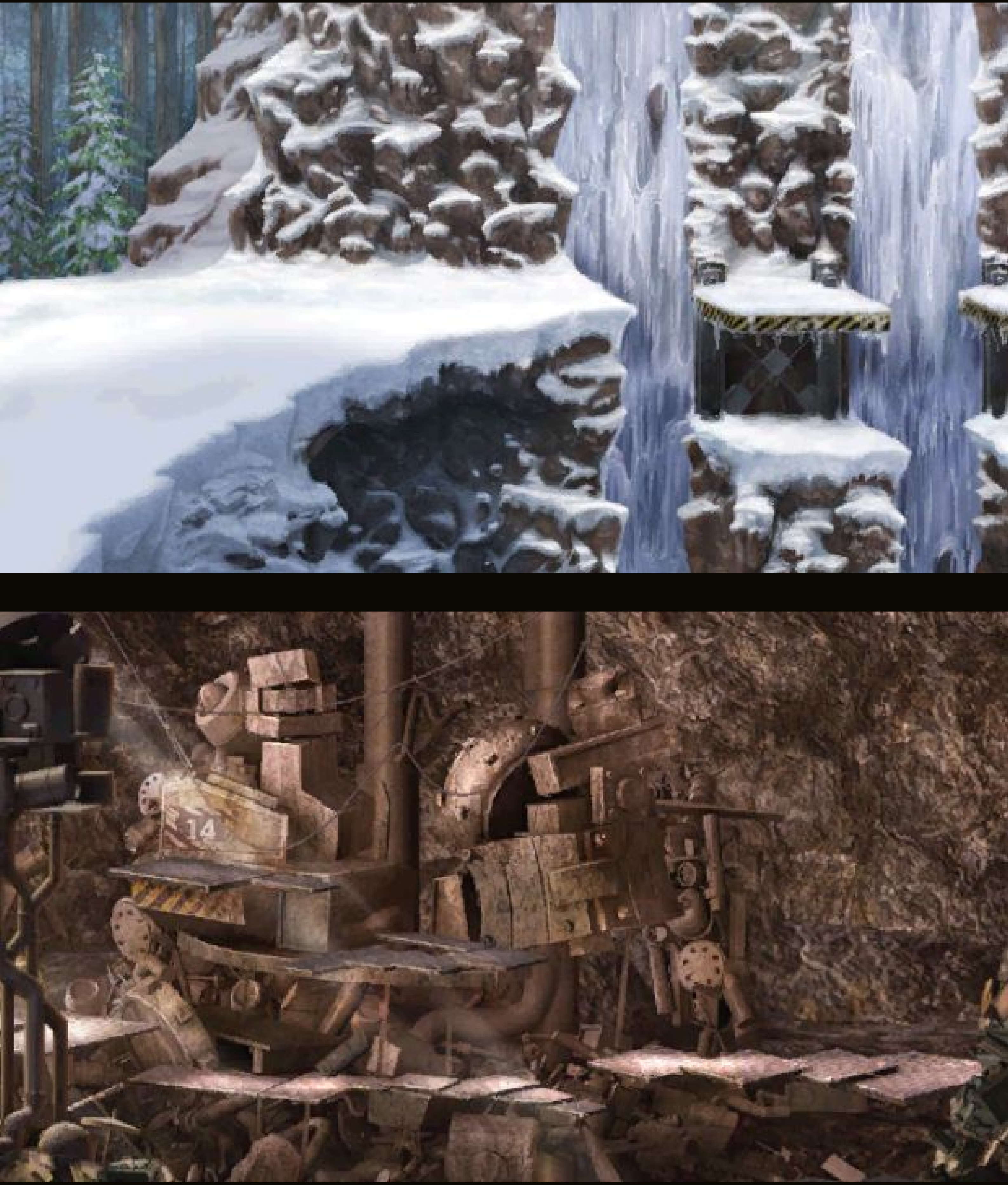
Below is a selection of sprites for the Future Rebel Soldiers. The various animation frames show the different weapons and attacks, which include electric shocks and energy blasts. Parachutes are also replaced with jet packs.



A new and improved version of the LV Armour, the Slug Armour can now take an extra hit and has a big cannon strapped to its back. This extra weight means that it cannot jump as high as previous designs, but the extra firepower is arguably worth the sacrifice.







A section of the background artwork for *Metal Slug 7/XX*. As with *Metal Slug 6*, the backgrounds are all pre-rendered and appear in a resolution that is higher than that used for the character and enemy sprites. Many of these backgrounds also include incidental animated effects, such as flowing water and twinkling stars.

INTERVIEWS

It’s one thing to showcase the amazing artwork which has characterised the Metal Slug series over the decades, but hearing the history of these amazing games from the mouths of the people who made them gives you an even greater understanding of what makes this series really tick. Across this chapter, we speak to some of the pivotal people behind the development and growth of the franchise, including many of the founding members of Nazca, such as Kazuma Kujo, Takushi Hiyamuta and Takeshi Okui.

Kazuma Kujo

Kazuma Kujo is rarely seen without sunglasses, a look often associated with other, more high profile Japanese game developers with a certain, shall we say, outward attitude. So, if you're not familiar with Kujo, at first glance you may wonder if you're in for a high-octane, volatile personality behind the shades, but the reality couldn't be further from initial impressions. When we spoke with Kazuma Kujo, he revealed a great sense of humour, an easy-going personality, and an eagerness to discuss his broad and varied development history. Perhaps he's just shy; maybe he's just sensitive to bright light. Don't let the sunglasses fool you: Kujo is one of the most important developers in Japan's storied gaming history, and it may surprise you how many games he's been involved in, and what he's working on today.

While Kujo is fully or partly responsible for '90s arcade classics like Irem's *In the Hunt*, numerous entries in the R-Type series (including *R-Type Delta* and the series' proper finale, *R-Type Final*), and of course SNK's first *Metal Slug*, he's more recently established his company, Granzella, which is named after the 'Granzella Revolution Army' from Irem's tactical PSP game, *R-Type Tactics II: Operation Bitter Chocolate*. Granzella has picked up the torch of his team's previous Zettai Zetsumei (aka Disaster Report) series, the most recent episode of which – *Disaster Report 4 Plus: Summer Memories* – debuted in late 2018, after numerous years in limbo since the demise of Irem's gaming division.

But, we're here to rifle through Kujo's memory banks of his brief time at SNK, when he was one of the original designers of the original *Metal Slug*, the iconic arcade shooter/platformer which has seen ports to nearly every modern gaming console in existence since its debut. You may not realise it, but the now omnipresent *Metal Slug* originally began life in a substantially different form. While you play as one of two human characters – Marco or Tarma – originally you only played as the Metal Slug itself, throughout the entire game. Similar to Kazuma Kujo's Irem shooter, *In the Hunt*, in which you played as a submarine, so too did the beta version of Metal Slug cast you in the role of the titular vehicle. As we will learn, this initial design decision came with its share of challenges; but before we get to that, we need to wind back to when Kujo began his career in the video game industry…

BB: Irem was your first job out of college. Were you a big gamer when you were in college and looking to work in the games industry? Why did you apply to work at Irem?

KK: I wasn't a very good player but, at the time, the Famicom was really popular, and specifically *Dragon Quest* was popular in Japan. When I played *Dragon Quest* I was amazed at how interactive it was and how the player could assimilate and play as the main character and go on an adventure. That was when I was in college. I had, of course, played *Super Mario* and other popular games at the time but that was just for fun. But, when I first started playing

Dragon Quest, it opened up my imagination to other worlds and the possibilities as a storytelling medium, maybe even more so than movies and novels. That's when I really became interested in gaming, through the perspective of the creators, and decided I wanted to work in game development.

BB: The Metal Slug team – most of whom came over from the *GunForce II* [aka *Geo Storm*] project – cite Hayao Miyazaki's *Daydream Data Notes* book as an inspiration. Besides that book, were there any Ghibli-inspired movies for the game? The mechanical designs for *Metal Slug*, as well as *GunForce II*, *In the Hunt* etc.; all that had rich, mechanical detail that Miyazaki is known for.

> *"When I played* Dragon Quest *I was amazed at how interactive it was and how the player could assimilate and play as the main character and go on an adventure."*

KK: Well, I'm not sure about *In the Hunt* but [lead artist] Mr. Akio was inspired by a lot of different things. He liked *Ginga Tetsudou [999]*, *Akira*, etc. as well. It wasn't just Hayao Miyazaki's book. He was inspired by artists, not only in the video game industry, but from outside the industry. *Uchu Senkan Yamato* was another, Gundam, etc. All the pop-culture influences of our time growing up. But, in regard to *Metal Slug*, I remember that he was particularly influenced by Hayao Miyazaki's book because that book was in the office and I would see him pick it up and read it every day.

BB: All these titles we're talking about have a very unique style, obviously because of Mr. Akio's artwork. *Metal Slug* and *In the Hunt* are memorable because they move so many detailed sprites on screen. Highly animated stuff. You weren't programming these games yourself, but do you remember how it was possible to accomplish this using the limited hardware at the time?

KK: There was nothing special about the tools that Mr. Akio and the designers used to create the artwork. They used animation techniques to move and rotate things on the screen. So, in fact, it wasn't very high-tech at all but a matter of skills on the part of the designers. Their passion to make it fun and surprising for the player, I think, drove them to create an enormous amount of movement patterns.

BB: It's impressive that they were able to make games so visually sophisticated on the hardware of the time. So, describe your transition from Irem to SNK. Irem shut down its video game department, and SNK reached out to acquire the entire team. Did SNK hear that Irem was shutting down its arcade division and reach out to you? The industry was more secretive about the staff back in those days. How did SNK know about what was going on within Irem?

KK: When Irem closed its Osaka office and left the arcade business, there were about a hundred employees and they were all scrambling to figure out where to go next. Groups of people started to form depending on where they were going next. For example, there were groups of people who went to SEGA, Atlus, Hudson, etc., but one of the executive managers at SNK was a former Irem employee. That manager was in close contact and friends with the visual manager at Irem. When all of this was going on, he suggested that we work for SNK in the form of a subsidiary, which became Nazca. It's true that, amongst the chaos of the closing of the office, we were able to form Nazca relatively quickly because of the connections we had with SNK's management.

BB: Back in the day, Japanese employees were usually lifelong employees at a company and it wasn't common for people to go work for other companies, much less the competition. Treasure is another example of this. They were former Konami employees who left to form their own company. Was it interesting to basically do the same thing, or was it a culture shock to go work for a one-time rival?

KK: Yes, it was an adjustment. Nowadays it's not uncommon for people to change companies or to go work for the competition. We even ask each other, "So, where are you at now?" But, at the time, it was hard to comprehend that we had to make games for a company that until just a few days ago were our rivals. I think everyone felt a certain amount of conflicting feelings, with everyone scattering to different studios. I hadn't really thought of it until you mentioned it, but now I remember that there was quite a bit of adjustment, and I remember thinking, "I'm going to go work for SNK." We had been working at Irem with a certain amount of pride and sense of rivalry toward SNK or Capcom, Namco or whatever. We were a smaller company compared with them but equally determined to make something special. To go from that sense of rivalry to jumping the fence and start making games for them required some time to adjust.

BB: If you were a fully financed subsidiary, why did you create a spin-off name like Nazca? Why not call yourselves SNK Research Division 1 or whatever?

KK: I don't know what the upper management's thought process was for that, but what I suspect is that our team had a very unique style. I think it was their way of respecting and preserving our spirit. SNK had their various pre-existing titles and IPs. They probably figured that it wouldn't work to try to force our team into SNK's culture, as there would be no benefit to doing so. I felt it was their way of protecting us from being engulfed into SNK.

BB: The game style you brought to SNK was very different from what they were working on. Was there ever any culture clash between your team and the developers at SNK? Nowadays, we associate SNK with the Metal Slug and THE KING OF FIGHTERS series, but, at that time, SNK had other titles that they were better known for.

KK: The developers at SNK were very respectful towards us. We were also in a different building so there weren't a lot of opportunities for us to interact during the two years that Nazca was established. But, in the few instances that I did talk to people from SNK, I felt there was a certain amount of respect towards us as former Irem developers. Although, I think the people in upper management were probably thinking we should be making games that sold better.

BB: Was marketing involved in any of the packaging or cover design process, or was it purely down to the development team's tastes?

KK: The character designs and logos were all designed by the development team.

BB: Was there ever a discussion about whether to change the name depending on the territory, or was it always just 'Metal Slug'? SNK was always bold about using English in the titles of its games, whereas, at Irem, *In the Hunt* was released in Japan as *Kaitei Daisensou*. SNK's global brand identities were very strong. Was this always deliberate?

KK: '*Metal Slug*' is the title that Meeher came up with and was calling the game from the beginning of development. So, it was a title that was meant for the domestic version, but I'm guessing the marketing department made the decision to go with it for the overseas version as well.

> "'Metal Slug' *is the title that Meeher came up with and was calling the game from the beginning of development."*

BB: Were there any other title suggestions besides '*Metal Slug*' that were popular within the team?

KK: No, I believe this was the only title that was used for the game from the beginning.

BB: You were the lead planner/designer for *In the Hunt* and your colleague [code-named] Meeher was lead planner on *GunForce II*, correct? And then you were both co-planners on the first *Metal Slug*.

KK: Yes, that's correct.

BB: So, *Metal Slug* is a super combo of planning power. What was the design focus for *In the Hunt* and *GunForce II*, and how did these unique directions come together in *Metal Slug*? How would you describe it?

KK: Meeher and I entered the workforce at the same time and we also started at Irem about the same time. So, we were close friends and we sat next to each other in the office while working on different games. Meeher made a game called *Undercover Cops* before working on *GunForce II*, and I was mostly working on side-scrolling shooters. So he created games where the screen would scroll and stop, scroll and stop. When it was decided that we would join forces and work on the same game, we agreed that it would be best to work in a way that wouldn't overlap. *Metal Slug*'s fundamental game mechanics were created together, but we split the level design so that we wouldn't step on each other's toes. You can tell which levels were designed by me and which were designed by Meeher by looking at the way the stage progresses. There's a lot of stopping and shooting in Meeher's stages, but the levels that I designed just keep on scrolling. By alternating the levels between his and mine, we were able to give the game variety in gameplay.

BB: *Metal Slug*'s vehicle design is reminiscent of Shirow Masamune's *Dominion* manga. Was it an influence?

KK: Yes, I think so. Mr. Akio was a fan.

BB: Up to this point, tying the progression together seems to make sense from *Undercover Cops*, *GunForce II*, *Metal Slug*, etc. How did Nazca end up creating golf game, *Neo Turf Masters* [aka *Big Tournament Golf*] as well?

KK: Actually, we were making golf games at Irem as well. And the teams that were making *In the Hunt* and Irem's golf games both went on to join Nazca, so we had two development teams working simultaneously on two titles.

BB: So, you weren't involved with *Neo Turf Masters* at all?

KK: No. They were sitting next to me but I wasn't involved.

BB: Imagine if you had created *Metal Slug Golf*? Was there anything in the *Metal Slug* planning doc that didn't make it into the game due to time constraints?

KK: I don't think there was anything that was in the planning doc that didn't make the finished product, but the original plan was to play as a tank [as opposed to a soldier who would occasionally jump into a tank]. So, that was one aspect of the design that changed the game drastically.

BB: This brings us to our next question: Apparently, it was your idea to change the player from a tank to a soldier based on the feedback from the location tests. This change opened up the game to a lot of humour, which is one of the game's signature traits.

KK: I think [the game has a lot of humour], too. But, at the time, the game's quirks or uniqueness was that the player could play as a tank. Mr. Akio was especially protective about that. But, as the level designer, I found it challenging to create a game involving trying to move a big tank around the screen. It's unique, for sure, but the movements become too bulky and awkward for an action/shooting game. So, when the location tests came back unfavourably, I proposed we switch the main character to a soldier, but it was not accepted easily by the team.

I made the suggestion in a big meeting with SNK managers, and the room went quiet when I suggested this. I didn't really think that they would go for it, but changes had to be made to the game in response to the poor ratings it got at the location test. And, even after a decision was made to change the main character, there was a lot of uneasiness in the studio. I do think that the change allowed for more humour in the game, but the team didn't feel that way for quite some time after the decision was made.

BB: Do you feel vindicated in the decision after the success of the game?

KK: Well, in terms of originality, there were already many games available where you play as a soldier, so *Metal Slug* might not have been that original, in hindsight. It might have been OK to leave it for the novelty of having a game where you just played as a tank. But, in terms of the quality of the game and longevity of the gameplay, I think this was better. It also opened up possibilities in level design and scenery. Needless to say, there was no acknowledgement by the team that it was the right decision. [Laughs]

BB: It was largely Mr. Akio's idea to play as a submarine in *In the Hunt*, so playing as a tank doesn't seem like a far stretch from what you had worked on in the past. Was it your idea to use tanks as the vehicle for *Metal Slug*?

KK: For *In the Hunt*, Mr. Akio wasn't in the original planning meeting. We were initially working with a different artist, but things weren't working out and that person left so, in the midst of looking for a replacement, Mr. Akio volunteered to join the team. He was the best artist at Irem, and I was surprised when I heard that he was willing to draw for our project because I had only been at Irem for two years [and was a young planner].

BB: Mr. Akio's work is amazing. The artwork in *In the Hunt* is so detailed. The battleships and vehicle sprites are super detailed. It really reminds me of *Space Battleship Yamato*.

KK: *In the Hunt* was inspired more by an anime called *Nadia: The Secret of Blue Water* by Hideaki Anno.

BB: Irem released a 3D PlayStation 2 game called *U: Underwater Unit*. This was basically a sequel to *In the Hunt*. What do you like about submarines?

KK: I think submarines, in general, are an interesting topic in games.

BB: So, when we were speaking with *Metal Slug*'s composer, Takushi Hiyamuta, he said that often he would only have two months to create the music for a game, and that the development cycle was also very short for a game. But you said that *Metal Slug* took two years to develop. That seems longer than the average game you made at Irem. Was this because you had to redesign the game from tanks to soldiers?

KK: Yes, that's correct. If it wasn't for that change, we probably would have finished it in a year and a half.

BB: What did you need to change in the game besides the main character?

KK: Well, obviously, the main character had to be recreated, from being a tank to a soldier. We used the same backgrounds, but the objects and enemies within the level had to be adjusted to match the new character. I believe there was one level that we had to do a complete revamp: the snow stage where the character jumps and climbs up the cliff, that level had to be recreated from scratch. It was one of Meeher's levels.

BB: And then you had to incorporate things like electric fences so characters could jump over them. Since the character was changed to a human, you must have had to introduce human-sized threats.

KK: We had originally designed the enemy bullets to fly with the target being a tank, so those things had to be adjusted to work with a human target to maintain tension in the game.

BB: Well, there is certainly enough tension in the game. After *Metal Slug* was completed you left Nazca and took a break before rejoining Irem. What did you do during that time?

KK: I was thinking about leaving the industry and, initially, I wasn't doing any work. But then I had various people ask me to help sell game concepts to publishers. So I found myself working as a freelance game planner. I was given business cards from various companies and pitched game concepts to the big game companies. I was doing that for ten months.

> *"As the level designer, I found it challenging to create a game involving trying to move a big tank around the screen. It's unique, for sure, but the movements become too bulky and awkward for an action/shooting game."*

BB: Irem wanted to get into game development and approached you about joining them. Is that correct?

KK: Yes, that's true. But I wasn't interested when they first approached me, so I turned it down. To me, it wasn't realistic to return to Irem and make games. I was seriously contemplating leaving the games industry. But, after making planning docs for other companies for ten months, it wasn't fun to just come up with game concepts without making them, and I had heard that Irem was in the process of restoring their console division, so I reached out to them to see if they were still interested in me rejoining their team. The offer was still open, so I agreed. The new office was in Ishikawa prefecture, not the original Osaka office, so I moved to Ishikawa prefecture.

BB: Did they first approach you after you left Nazca or before?

KK: They asked me before I left Nazca and also after I left Nazca, but I really didn't take it seriously at the time.

BB: What was the reaction at Nazca when you said you were leaving?

KK: Everyone was surprised. Meeher was upset. Meeher stayed on until *Metal Slug 3* before leaving.

BB: Did Meeher leave because it wasn't any fun at Nazca without you?

KK: I don't think so. [Laughs]

BB: I sense that you have a lot of affection for the titles you've worked on. Is that one reason you went back to work for Irem?

KK: The reason I returned to Irem was because they promised that I would be able to make consumer games and that I would have my own team.

BB: Was that because Irem recognised the runaway success of the Sony PlayStation at the time?

> *"The main character had to be recreated, from being a tank to a soldier. We used the same backgrounds, but the objects and enemies within the level had to be adjusted to match the new character."*

KK: By then, management had changed, and I don't think upper management had any interest in going back to making consumer video games; but there was a small group of persistent employees at Irem who championed for the reinstallment of a video game development division. They were the ones who reached out to me and made it happen.

BB: It's disappointing that Irem has again left the video game industry, but we should give them credit for bringing you back in the first place, and for the games you were able to create during that time.

KK: Yes, Irem 'part 1' was where I learned how to make video games, and Irem 'part 2' allowed me to make the games I wanted with a lot of freedom, and, even since we've formed Granzella, Irem continues to support us, so I'm very thankful to them.

BB: Is Granzella kind of like Irem 'part 3'?

KK: No comment. [Laughs]

BB: Irem still exists as a company primarily involved in the pachinko business, correct?

KK: Yes, they're still making pachinko games.

BB: Why didn't you put the Granvia ship [the player's submarine from *In the Hunt*] in *R-Type Final*?

KK: It's true that I put a lot of ships from Irem's previous games in *R-Type Final*, but it felt [self-indulgent] to put Granvia in the game, so I held it back.

BB: SNK is good at repurposing their IPs; many of their games have been ported to other systems. So, where most of SNK's library has been available forever, almost none of the Irem games are available. Only *R-Type I* and *II*, which have been licensed, really exist anymore. Do you think it's a shame that so much of Japanese gaming history is unavailable?

KK: If Irem still had a video game division, they might have ported the games like SNK, but, since their video game division is non-existent… I do think it's a shame.

BB: You mentioned that one of the conditions for returning to Irem was to form your own team. Japanese companies are generally sensitive about other companies poaching staff – hence the code names in older Japanese arcade games – so did you create an all-original team or did you bring anybody on from Nazca?

KK: Initially, my team consisted of four people when we started. We eventually grew to about 20 which consisted of people I pulled from Irem 'part 1', some from Nazca, and also new members.

BB: And you were responsible for all the Irem titles from then on out? *Bumpy Trot*, etc.

KK: Yes, I was the director of consumer games at Irem, so I oversaw all titles from 2002 onwards.

BB: The primary reason why you left SNK to return to Irem was because of the limitation of arcade games, in terms of depth of narrative storytelling. Console games have hours of gameplay compared with 15-minute runs in an arcade. Your earlier example of *Dragon Quest* seems to reinforce this.

KK: I originally wanted to make consumer games but I was appointed to the arcade division.

BB: How many years were you working on arcade games when you decided you wanted to work on consoles?

KK: I worked on arcade games from when I was 22 to 29 years of age. Throughout my twenties, I worked on arcade games. And that was between my time at Irem and Nazca. I think four or five years were at Irem and two years at Nazca.

> *"You have to give the player everything you've got right from the start. Arcade games only last a few minutes from the point when the player puts in the coin."*

BB: Seven years of making arcade games when you wanted to make console games. That must have been creatively limiting in ways, but, at the same time, that experience was probably valuable. What would you say you learned from your experience that carried over to console game development?

KK: Yes, for sure. Although I was unwillingly assigned to make arcade games, I ultimately learned valuable lessons that helped me make better console games. For example, the gameplay needs to be simple enough to explain to the player in a short amount of time. Also, to not hold back on the best qualities of the game. You have to give the player everything you've got right from the start. Arcade games only last a few minutes from the point when the player puts in the coin. You don't save the best for last when you don't know if the player will ever get that far. As I see it, that's the same for console games, as well. These rules were pounded into me from the days of working on arcade games.

BB: Thank you so much for taking the time to talk with us.

Takushi Hiyamuta

As with most of the Metal Slug development team, Takushi Hiyamuta – the humorous and easygoing-composer, also known as HIYA! in the credits sections – was once part of Irem's arcade game development division. As one of the founding members of Nazca – the ex-Irem-turned-SNK internal development studio – Hiyamuta found himself tasked with soundtracking the nascent team's first effort: *Metal Slug*. In our chat with Hiyamuta, we do a deep dive into his time at Irem, to explore where he honed his game music skills before taking on the assignment for soundtracking Nazca's *Metal Slug*. In the process, we discover his love for both progressive rock and the TV show, *Thunderbirds*.

BB: Let's start by talking about how you got into music.

TH: How I got into music. [Ponders] It was probably because my family had a guitar lying around at home.

BB: Were your family members musical in nature?

TH: No, they aren't musicians. My sister was learning to play the piano and the Electone [a series of electric organs produced by Yamaha]. I actually don't have any formal training. I just happened to pick the guitar up because it was lying around, and that was the beginning of my music career.

BB: When did you start learning to play?

TH: Probably from about six or seven years old.

BB: Did you later major in music at school?

TH: No, I went to a regular university and didn't get any formal training as a musician.

BB: That's a lot like Final Fantasy's Nobuo Uematsu. He's also self-taught. So, you're naturally talented. Who were your heroes and inspiration?

TH: Emerson, Lake and Palmer.

BB: So, you like progressive rock?

TH: One musical influence, in regard to *Metal Slug,* was *Thunderbirds*.

BB: The TV series? So, the music in *Thunderbirds* was an influence on *Metal Slug*? Was the series popular in Japan?

TH: It was super popular in Japan. I bought so many *Thunderbirds* toys as a kid.

BB: What inspired you to pursue a career in music? Was Irem the first company you worked for?

TH: After I graduated college – I was 22 years old – I became a regular salaryman. After working as a salaryman for three years, I started thinking that there must be something else I can do. That's when I thought of applying to work for a video game company. I applied to Irem and Konami. I was offered a job as a music composer at both companies, but Irem happened to be located closer to home so I decided to take their offer.

BB: Did you play games prior to working for the industry?

TH: Yes, I've been a gamer since the *Space Invader* days.

> *"After I graduated college – I was 22 years old – I became a regular salaryman. After working as a salaryman for three years, I started thinking that there must be something else I can do. That's when I thought of applying to work for a video game company."*

BB: How did you get the job offers? Did you have to give them samples of your work?

TH: I think I had to submit three songs. That was the first time I had recorded my music electronically. I had written music for bands for live performances, but never recorded music. So, I submitted the three songs I recorded to Irem and Konami.

BB: What was the criteria?

TH: There was a criteria, but I just remembered that I wrote four songs. And the reason why I wrote four songs was that Konami asked for four songs. And the criteria was to write music for a shooting game and for a racing game. There wasn't any criteria for the Irem position, but they wanted to see something that I had worked on in the past, so I sent them the same music I had written for Konami.

BB: Did you submit a full, multi-tracked song, or were you playing some guitar?

TH: I think it was closer to the type of music you'd hear in games nowadays. We didn't have instruments back in the day that sounded like computer game music, just a synthesiser. So, I think it was a full multi-tracked song.

BB: Your first game music was composed for *Air Duel*?

TH: Yes, that's my first game.

BB: What was it like to go from freely writing music for a band to writing in a technology-restricted format?

TH: There's no difference in the thought process of writing music for bands or for games. But, back in the day, the game systems could only output eight simultaneous tones. We had to fit the music and the sound effects into eight sounds. So, there were limitations in fitting the music into those restrictions, which was difficult. To come up with the rhythm, bass, harmony and melody within those restrictions was where I struggled the most.

BB: In Japan, publishers are usually really good about releasing game soundtracks, but they never released a soundtrack for *Air Duel*, did they?

TH: I don't think there's been a soundtrack for *Air Duel* released.

BB: Do you see a clear evolution from the music you made back in the early days to soundtracks you make today, either in technique or skill in playing?

TH: From a technical standpoint, it's easier to write music nowadays because there are no restrictions.

BB: What do you remember of your experience working on your first game as a composer?

TH: *Air Duel* was the first project where I had to write music for a video game, but I was only given a month to complete the project. The reason it was so short was because the prior composer on the game had already left Irem. The game development was on schedule but nobody was there working on the music. So, when I joined them, I had one month to make the sound effects and all the music for the game.

BB: The previous composer didn't do any of the work?

TH: Nothing for *Air Duel*. He was assigned multiple projects and they were piling up.

BB: Did you ever get any direction from the development team for the music?

TH: I didn't get much direction from the development team regarding composing the music. I just did my own thing.

BB: Do you think you would have gotten away with anything?

TH: If it was rubbish, they probably would have said something, but they seemed to like my work so they probably didn't feel the need to have to give direction. Also, because the development time was so short at Irem, I don't think they had time to worry about other people's work.

BB: How long was the development time for Irem's games?

TH: Average development time at Irem was two months.

BB: That's really impressive because the quality of the work holds up.

TH: The time allocated to compose the music was two months. The graphics team couldn't have pulled it off in two months; they had about six months to a year. And the creators at Irem were excellent artists. And, whether we're talking about artwork or music, the internal tools were also highly sophisticated.

BB: Is that why everyone used an alias in the credits?

TH: Yes, that's true. At the time, these skills were highly specialised. That's not the case so much now but, back in the day, knowledge of the hardware and developers with a certain amount of accomplishments were liable to be recruited to competitors, so companies were very careful to hide their names.

BB: It's ironic, though. Your name is closer to identifying who you were than most of the other nicknames. Going back to Emerson, Lake and Palmer (ELP), you mentioned that they were your biggest influence, but they don't have a member that's strictly a guitarist. They're primarily a bassist, keyboard player, and drummer.

TH: I mentioned ELP and *Thunderbirds* earlier as influencing me. Those were most likely the first music that inspired me as a child to become interested in music. As my interest grew, I found guitarists and other musicians that also influenced me to pursue music. There are many musicians that influence me and I listen to jazz, rock, fusion, etc. I've listened to a broad variety of music.

BB: I do hear the fusion influence because a lot of the Metal Slug soundtracks have a fusion element.

TH: Michael Brecker is one of my favourite saxophonists.

BB: When you were working at Irem, what was your actual gear setup? What equipment did you use?

TH: At Irem, I had a computer at my desk and... I don't think I had any instruments at the office. I had sampling machines and one other piece of equipment that produced sounds, but it wasn't an instrument. The games used a sound chip on the motherboard, so I entered music directly into the sound chip.

BB: Did you write music directly onto the motherboard or did you sample music at home and bring it into the office?

TH: No, I was at my desk, writing music into my computer. All the time.

BB: How were you able to get so many diverse sounds?

TH: The sound chip I used back then was the YM2151, Yamaha's sound chip. It was the same chip that was used in synthesisers at the time, so I would enter the parameters directly into the chip and create the various tones. So, it was like playing a Yamaha synthesiser directly on my computer.

BB: How hard was it for you to adjust to making music this way? You seem to be someone who was used to playing live and then had to switch to digital arrangement.

TH: Back in those days, computers weren't a household item, so I had to teach myself within the first month of starting to work at Irem.

"The sound chip I used back then was the YM2151, Yamaha's sound chip. It was the same chip that was used in synthesisers at the time, so I would enter the parameters directly into the chip and create the various tones."

BB: There was a variety of arcade hardware that Irem utilised during the time you were with them. Were there any differences between them that affected your work?

TH: The M-series was basically the same. There was an I-series that came after the M-series, which *Undercover Cops* and *In the Hunt* (*Kaitei Daisensou*) were made on. The music was slightly more gorgeous for those games.

BB: Did you work on *In the Hunt*?

TH: No, not for *In the Hunt*.

BB: You worked on *Air Duel*, *Armed Police Unit Gallop*, *Undercover Cops* and *GunForce II* while still at Irem?

TH: There were more titles than that.

BB: But you did work on *GunForce II*, or *Geo Storm* as it was called in Japan?

TH: Irem closed the video game division in the middle of the production for *GunForce II*. So it was rushed to completion. The way that I write music for video games is that I start with the sound effects, because it's more efficient to put in the sound effects while the programmers are making the game. The songs can be added to the game at the very end. So, for *GunForce II*, I started making the sound effects and had left the song to create afterwards. But, we needed some placeholder for the songs to set the tone for the game, so I had created a couple of set patterns as placeholder music. Regarding the sound effects, there's a scene where they rescue a female prisoner, and I did her voice because we didn't have enough time to hire a female voice actor.

BB: Did you work on the original *GunForce* as well?

TH: No, I didn't work on the original.

BB: Irem was slowly shifting their focus from video games back to pachinko, which was their original business. Was *GunForce II* the first game where they moved away from video game development?

TH: Irem originally had two offices. One in Osaka and another in Ishikawa. Most of the video game development was done in the Osaka office, but they closed the Osaka office and kept the Ishikawa office, which made all the pachinko games. So, closing the Osaka office meant closing the video game division.

BB: That's interesting because they eventually got back into video game development a few years later. Did you and other members at Irem form Nazca because Irem closed the Osaka office?

TH: Yes, about half of the members at Irem left to form Nazca, while others were scattered to other game companies. And, eventually, a few former Irem members at Nazca left to return and form the new video game division at Irem in Ishikawa. *R-Type Delta* was made by a few of the former Nazca staff.

BB: One last question about *GunForce II*. It didn't have credits at the end of the game. Was the sudden closing of the office something to do with this?

TH: I'm not sure, but Irem sold the rights to *GunForce II* to another company before its release because they'd also gotten rid of their sales team. So, I think it was actually released by a different company. That might have something to do with it, but I can't be certain. What I do know is that the name 'Geo Storm' comes from the name of the car I was driving back then. It was a car called 'Storm' released by a US manufacturer called Geo. It was a model manufactured by General Motors.

BB: It's literally that simple of a reason?

TH: The planner/director was brainstorming all kinds of names for the title, and he really liked my car. One day he was like, "'Geo Storm' sounds so cool."

BB: You hear that a lot in the games industry: "That sounds cool. Let's go with it." Let's talk about the forming of Nazca Corporation. What did Nazca stand for?

TH: That was the result of polling of ideas from the original Nazca members.

BB: Does it stand for anything?

> *"What I do know is that the name 'Geo Storm' comes from the name of the car I was driving back then. It was a car called 'Storm' released by a US manufacturer called Geo."*

TH: No, it just sounds cool.

BB: Nazca seems like it was like [*Ikaruga* developer] Treasure, an internal development team at Konami who broke off to go do their own thing.

TH: We were offered funding from SNK to form Nazca.

BB: So, SNK supported starting Nazca from the beginning?

TH: Yes, the executive managing director at SNK at the time, Mr. [Takushi] Nishiyama – he's currently the CEO of Dimps – was a former Irem employee. He offered to finance Nazca as SNK's third-party developer. That was the start of Nazca.

BB: So, the transition from Irem to Nazca was pretty quick and your first two projects as Nazca were *Neo Turf Masters* [aka *Big Tournament Golf*] and *Metal Slug*?

TH: Yes. In addition to *Neo Turf Masters* and *Metal Slug*, we were also working on other SNK titles.

BB: Publicly, Nazca is known for *Metal Slug* and *Neo Turf Masters,* but Nazca was responsible for more SNK titles of that time?

TH: We were providing support to other SNK titles, but they weren't our games.

BB: Approximately, how many members were at Nazca?

TH: About 30 to 40, I think?

BB: What portion of the team was composed of former Irem employees? That seems like a pretty large amount of staff, based on how many people it took to make games at the time. Was that the standard size of teams that made games for Irem?

TH: Pretty much all of us were former Irem employees. The *Metal Slug* team was about ten people. Come to think of it, I don't think there were that many of us. There were 100 at Irem, about 20 joined Nazca. I was the only one doing sound, two planners, six to eight designers, five programmers. How many does that make?

BB: 14-16? Fewer than 20.

TH: And the *Neo Turf Masters* staff were a second team developing simultaneously as *Metal Slug*, but they didn't have as many on their team because the designers, programmers and myself were working on both projects. So, if there were two to three planners for *Neo Turf Masters* that would make us about 20 in total.

BB: Were you the main composer for Nazca?

TH: Yes. I was the only music composer.

BB: How did you switch between writing music for *Metal Slug* and *Neo Turf Masters*?

TH: For *Neo Turf Masters,* my main motivation was to help the player play in an exciting and fun way. Golf games usually had more quiet and mellow music. But my thought process was that, since it's something customers play at an arcade centre, not relaxing at home, it should be loud and stimulating. So the music I wrote for it was quite flashy for a golf game.

For *Metal Slug*, the music is more like movie music, I wanted people to enjoy the game from a third-person perspective, as if watching a movie. Yeah, I wanted to make music similar to the soundtrack from *Thunderbirds*.

BB: Is it true that *Metal Slug* has some music that you had created for earlier Irem games?

TH: I don't think that I should say that I consciously wrote similar music to what I created at Irem, but I do think it's similar. It's been so long, so I think it's safe to say this now, but the team members are basically the same people throughout all these projects from *Air Duel*. So, inside my head, they're all from the same story, including *Undercover Cops*. If I had been involved with *In the Hunt* I would have probably used the same style/mood of music in the game. And, in regard to *Metal Slug*, I should emphasise that it's not deliberate, but I was probably imagining the same universe, feel and continuity, as if *Metal Slug* was sort of a sequel to the prior games that we had worked on.

BB: Did you use any of the same sound effects from prior games because the kill sound from *Metal Slug* sounds similar to the same in *GunForce II*?

TH: That's a difficult question to answer as it was such a long time ago. The sounds I used were sounds that I had in my personal sound library, so it's *possible* but I cannot confirm.

BB: Can you tell us about the development of *Metal Slug*? This is what we call a 'run-and-gun' game, which you guys had experience in. In many ways, it feels like an evolution of *GunForce II* with a whole new aesthetic. *Metal Slug* took a more Hayao Miyazaki influence.

TH: *Geo Storm* looks like it was made by the *Metal Slug* team but, actually, it isn't. *Geo Storm* was originally a different project, but the development was so far behind – back when it was still called *GunForce II* – so the members who made *Metal Slug* were added to the *Geo Storm* development, which led to *Geo Storm* looking more like *Metal Slug*. But, originally, it was much closer to the first *GunForce*.

And, in terms of the visual direction of the game looking like a Hayao Miyazaki movie, the aim was to make it look like a retro, WWII, European warfare game, although the content is very sci-fi. That style, I guess, is similar to films like Miyazaki's *Porco Rosso*, and, needless to say, Japanese artists admire and are undeniably influenced by Studio Ghibli and Miyazaki-sensei's work.

BB: It's easy to see the comparison with the level of details in the machinery and weapons in Miyazaki's work and the level of detail we see in *Metal Slug*.

TH: Yeah, the level of artistry in the graphics is really something. The 'mecha' goes so far beyond that it's no longer like mech, it's like a living thing. I really admire the artist's work.

BB: You mentioned *Thunderbirds* being an influence. It's kind of a fast and funky jazz fusion, which is reminiscent of a lot of game music from that time. SEGA's arcade soundtracks were often similar. If you look back on the music of that time, like *SEGA Rally*'s soundtrack, for instance, what are some cultural influences that might have been a factor in this?

TH: It's hard to say because I was constantly influenced by music of that particular time. But, in regard to *Metal Slug*, I don't recall there being much of a cultural influence or particular music being of influence in creating the *Metal Slug* soundtrack. I don't listen to too much music when I'm writing music because I don't want it to influence my work. In regard to *Metal Slug*, I actually remember watching a lot of movies for inspiration.

BB: Which movies did you watch?

TH: I remember rewatching *Star Wars* in particular.

BB: How did you create the sample speech?

TH: There's not so much speech, but a lot of yelling and screaming, if that's what you mean! I really wanted to make the characters speak. The game has narration that has nothing to do with the players. I wanted to send out messages from the game to the players playing the game through characters' speech. That's why there are all these random messages like, if there's a fat character on screen, you hear "Woah, BIG!"

From the planning stage of the game, I was thinking about how I could get the characters to say things that speak directly to the players. But, because this is an action game, there's really no time for the characters to talk while the game is progressing. There's no way for the player to make the characters say things or time for the characters to act out their responses, so that's why there's a third-person – 'God's voice' – shouting out random screams and commentary of the game. The players don't know where the voices are coming from, but they hear it as commentary of what they see on screen. That was intentional.

> *"I really wanted to make the characters speak. The game has narration that has nothing to do with the players. I wanted to send out messages from the game to the players playing the game through characters' speech."*

BB: Who did the voice-overs?

TH: For the first *Metal Slug*, we hired a native English speaker to do the voices. But, for *Metal Slug 2* or *X* and onwards, we used the sound creator from SNK who spoke native-level English so he did the voices.

BB: *Metal Slug* was originally designed with the player playing only as a tank through the whole game, right?

TH: Yes, that's true. Initially, there were no humans on-screen. So it was initially a shooting game with just the tanks.

BB: What was responsible for the decision to change the tanks to soldiers?

TH: The results of the location tests were not favourable with just the tanks. The early prototypes with the tanks were sent out on location tests where they measure and observe the consumer's reaction to the game. The results of that test showed that people were not showing a lot of interest in the game. That's how I remember it.

BB: That's interesting, because it's often the most enjoyable time when the soldier jumps into the tank and plays as the vehicle. So the thought of a game where you're in the tank the entire time sounds kind of awesome.

TH: The game was closer to a shooter, initially. The game mechanics were closer to the shooter, *Image Fight*.

BB: Did you have to adjust the music?

TH: I was working on a different project by the time they had decided to make the character switch so I wasn't able to make too many changes. I had to redo all the sound effects and voices, so I didn't have time to change the music in the game.

There's a song, I think on the third level, where I accidentally used the same song from a previous level. Even now, I regret that I hadn't put in a different song because the same music repeats where it should be a different song. I think it was the end of the second level and the beginning of the third level.

"This is my opinion but Metal Slug's setting was inspired by World War 1 and 2, in Europe, but Metal Slug 2 covered a greater scale, so it opened up the game to endless possibilities, so I think that led people to wonder what was possible next."

BB: The first *Metal Slug* soundtrack was recently re-released on vinyl. It's quite handsome.

TH: Thank you! I was super excited about the release of that vinyl soundtrack when it came out last year.

BB: You worked on the music for the first three Metal Slugs?

TH: Yes, the first three.

BB: How did SNK respond to *Metal Slug* when it came out?

TH: It wasn't bad, but it wasn't particularly good, if I recall correctly. I think they were a little sceptical about the game.

BB: Ultimately, they made ten-plus Metal Slug games, so obviously it did well enough for them.

TH: They were sceptical because it wasn't a typical SNK game. The first one was received rather well and *Metal Slug 2* was particularly popular overseas. There was a lot of pressure from overseas to hurry and release another Metal Slug, and we were in the midst of making *Metal Slug 3*, but they didn't want to wait for the completion of the game. That's why we released *Metal Slug X*. *Metal Slug X* was content that was supposed to be included as part of *Metal Slug 3*.

BB: Do you have any thoughts as to why *Metal Slug 2* was more popular than the first one?

TH: This is my opinion, but *Metal Slug*'s setting was inspired by World War 1 and 2, in Europe, but *Metal Slug 2* covered a greater scale, so it opened up the game to endless possibilities, so I think that led people to wonder what was possible next.

BB: *Metal Slug 2* came out in 1998. *Metal Slug X* came out in 1999. Was *Metal Slug X* meant as an extension of *Metal Slug 2*?

TH: The original *Metal Slug 3* was designed to be much greater in scale. The finished product of *Metal Slug 3* is bigger than any of the games that preceded it, but the initial planning doc of *Metal Slug 3* was even bigger. (Umm… not sure if I can say this, but, since it's been so long…) Anyway, we were told they wanted to release something quick. So, the pitch was we would release *Metal Slug X* as the remake of *Metal Slug 2*. So, I re-recorded all the music for *Metal Slug 1* and *Metal Slug 2* in preparation of putting it in *Metal Slug 3*, but it got put into *Metal Slug X* because they pitched the game as the remake of *Metal Slug 1* and *2*. If there was ever an opportunity where they would consider making another vinyl soundtrack of Metal Slug, I'd really appreciate it if they could include the songs in *Metal Slug X*, which were rearranged songs of the first two games. There are a lot of people, thankfully, that have listened to the music of *Metal Slug 1* and *2*, but I don't think anybody has heard the rearranged versions of these songs that were intended to be included in *Metal Slug 3*.

BB: Who has that music?

TH: SNK should still have the recordings. If it's just the score, I think I also have it.

BB: *Metal Slug 2* had a lot more humour in it. Was that mostly the director and planner, or did everyone brainstorm ideas? Did anything get left behind?

TH: Generally speaking, Meeher, the planner, and Akio, the art designer, are responsible for the humour in the game. In terms of content that didn't make the cut, I think there is a ton of material that didn't get included in the final game.

BB: How involved were you in the game development?

TH: I was very close to the planner, but the sound and music is always left towards the end of the development, so I was never in the planning meetings. But they were always open to ideas so I pitched in a few. For example, the end of *Metal Slug 2*, where the enemy boss rolls on his back and the player character joins forces with the enemy to fight the alien, I believe that was my idea.

BB: Do you have any crazy side-stories that you remember?

TH: Let's see… there's a lot. I remember that the planner for *Neo Turf Masters* was really sceptical about the upbeat music I wrote for the game. Golf games always had more mellow, chilled-out music. But, I insisted. There's a SEGA game called *Out Run* that played this exciting BGM in a loop. At the arcades, that loop felt cozy and comfortable, and I wanted to emulate that feeling. So I promised him that, if the music didn't match after they tried playing the game with the music I wrote, I'd rewrite it. I remember pushing that through.

BB: You won that battle.

TH: Yeah. At the end, the planner said he liked the music in the 'American course' best. So, the fact that he had favourites, I guess he warmed up to the music.

BB: *Metal Slug 2* was famous for having some bugs and slowdown which were eventually fixed in *Metal Slug X*, but is it something you and the team were aware of before the game was released?

TH: My speculation is the slowdown was probably due to problems with the system's processing unit. They probably were aware about the slowdown before the game's release. Metal Slug games had so many things happening on-screen which probably contributed to the slowdown, and they weren't yet well-versed in the NEOGEO hardware.

In regard to the bugs, the members at Nazca would have fixed those if they were aware of them, so I don't think they were initially aware of the bugs.

BB: In Hollywood movies, once a scene has a rough cut, they send it to the composer to write music around the visuals while they edit the movie. Is that how it's done with the games you worked on?

TH: The first thing I see is the planning document of the game. The planning document details the storyline, visual direction, different stages of the game, the different enemy bosses. Based on that document, I'll start making the sound effects. By the time I've completed the sound effects, development has started and I can see the game in progress. Then I'll write the music to the game while playing the in-progress game. I'll hum the melody or the tune while playing the game.

BB: That's a near-completion game, right?

TH: Yeah. *Metal Slug* has a storyline to it, so I had to write music to match the story. If it was a fighting game, I'd write music to match the location or the level. But, for a game like *Metal Slug*, there's an emotional element to the flow and progression of the game. That's the kind of thing that would be spelled out in the planning document. So, I would write music to match how I would want the player to feel at each level.

BB: Did the team always like what you created?

TH: I never asked what they thought of the music but I don't think there were any complaints.

BB: How long did you work with these guys?

TH: About five years total at Nazca and Irem. Once Nazca became fully incorporated into SNK, I got transferred to SNK's sound department. So, I started working on other SNK projects, and, unfortunately, I didn't get to keep working as closely with the Nazca members. The exceptions were the Metal Slug titles because I was the only one who could work on those.

> *"The first thing I see is the planning document of the game. The planning document details the storyline, visual direction, different stages of the game, the different enemy bosses. Based on that document, I'll start making the sound effects."*

BB: Do you remember anything from the creation of *Metal Slug 3*? How did you approach the creation for the music?

TH: By the time *Metal Slug 3* came around, I was working in a different location from the Nazca team. I was planning on writing the music on my own but was told to form a team. The most challenging thing about making the *Metal Slug 3* music was communicating to the team what I had in mind.

BB: So, your memories aren't as great for *Metal Slug 3*?

TH: No, not at all. I was very close to the members on my team so it was a lot of fun. It was just difficult to convey what I thought was 'Metal Slug' music. As the team leader, I was in a position where I had to give direction, and it's an uncomfortable position to be in, to criticise other people's music. I know they put a lot of effort and thought into writing it. When it's different from what I had in mind, I found it hard to find the right words to convey what I imagined the song to be. I think that was the hardest thing about *Metal Slug 3*.

> *"If given the opportunity, I would love to consult on a new Metal Slug game."*

BB: So, five years working with the Nazca team, and the only time they gave you a hard time was for the music for *Neo Turf Masters*?

TH: Yeah, they never questioned my music. But, *Neo Turf Masters* was... There was already a golf game at Irem, called *Major Title*, and that was a really quiet game. The planner and artist for *Major Title* were the same people working on *Neo Turf Masters*, and they were caught off guard, I think, when I came on and wrote this new music, and they were surprised at how much of an impact it had on the game. So, it wasn't so much a criticism but concern on how the game would be received. I think their reaction was like, "Why couldn't he just write music similar to what we had before?"

BB: The *Neo Turf Masters* soundtrack has been described as 'relaxing' but it doesn't seem very relaxing.

TH: I agree.

BB: When did you decide to leave SNK?

TH: I think it was around 2000, SNK fell into bankruptcy, and everyone went our separate ways, including Nazca.

BB: What are your lasting memories of the franchise?

TH: First and foremost, I'm really grateful that the franchise has lasted so long and has been loved by people all over the world. Secondly, when we were making the game, we never imagined that the game would still be around 20 years later. Had I known it would be, there are things that stand out as something we should have done differently or done more of.

BB: At least most of the games you've worked on at SNK continue to live on. Metal Slug gets ported to everything, like iPhones and tablets, whereas none of Irem's games, besides the first *R-Type,* get ported to anything. Irem's even taken its digital games off the PlayStation Store. Part of your personal game history is lost.

TH: Yes, I'm very grateful that the titles I've worked on are still available for people to play. But, and this is a selfish request, I hope that people who work on the ports preserve the essence of a Metal Slug game. It's a difficult request since it's different people who are making the game. If given the opportunity, I would love to consult on a new Metal Slug game.

BB: Based on your reaction to how happy you were about the release of the vinyl, do you wish there was more of a platform for you to perform your music? We mentioned Uematsu earlier, he was able to experiment with a wide range of music because *Final Fantasy* was an RPG showcasing different worlds and themes, rather than arcade music that's on a loop for five minutes. Do you wish you had the opportunity to work on something grander?

TH: I have had that opportunity.

BB: In the gaming industry?

TH: Yes. My name is known for the Irem and SNK titles, but there are titles that I have worked on where my name wasn't credited, such as RPGs and simulation games. I get asked this a lot so, maybe someday, given the right opportunity, I've started to think that maybe I should announce to the public all the titles I have worked on. It's complicated. Back then, we weren't allowed to publicly share what we worked on. Or, if I was working on multiple projects from different companies, there was a sense that I had to hide the fact that I was working on the project where my name wasn't shared. So, I'm known for my music in arcade games, but I've also written music for consumer games, like on the Sony PlayStation.

> *"My name is known for the Irem and SNK titles but there are titles that I have worked on where my name wasn't credited, such as RPGs and simulation games."*

BB: Uematsu often goes on tour to perform his music. Have you considered doing the same?

TH: The songs I've written are probably too hard for me to perform. [Laughs]

BB: Are you still in touch with any former Nazca members?

TH: I am able to get ahold of them, but I don't see them too often. But we're connected on social media so I can reach out to them when I want to.

BB: What's your favourite Emerson, Lake and Palmer album?

TH: *Tarkus*.

BB: Classic! Thanks for speaking to us today.

Atsushi Kurooka

As much attention is typically given to the action, graphics and sheer chaos of a typical Metal Slug stage, it's often taken for granted that a lot of the on-screen wreckage takes place in the background, where tanks can be seen falling down destroyed hilltops, where entire buildings could be shell-shattered to reveal their inner workings, and where giant bosses lumber about. One member of the nascent Nazca's core team – Atsushi Kurooka – is yet another holdover from the Irem days. Kurooka was one of Nazca's programmers, responsible for handling the backgrounds and all that entailed. We speak with him at length about what it was like working on this seminal example of 2D action gaming and why, having accomplished what he did, he left it all behind to go fishing.

BB: How did you get into the video game industry? Were you fresh out of college?

AK: I graduated from a community college, and the first company I joined after college was Irem, and *GunForce II* (aka *Geo Storm*) was the first title I worked on at Irem.

BB: Up until that point, were you a gamer, or were you just interested in programming for games?

AK: Yes, I did play a lot of games as a student.

BB: What were your favourites?

AK: I liked Irem games, like the shooting game called *R-Type*. That is my favourite game and one that has been most influential for my career.

BB: Did you apply only to Irem or did you apply to other game companies, as well? *Metal Slug* composer Takushi Hiyamuta said he had applied to Konami and Irem, but decided to join Irem due to proximity to his home.

AK: I don't remember applying to any other companies, and I specifically applied to Irem because I liked their games. Irem, Konami and Jaleco came to our school recruiting students but, without hesitation, I approached Irem and only applied there.

BB: Were you the lead programmer on *GunForce II*?

AK: No, I was the sub-programmer for both *GunForce II* and *Metal Slug*.

BB: What was your primary task for both titles?

AK: For *GunForce II*, I worked mostly on the enemy mechanics.

BB: You probably worked closely with the planner to come up with the enemy mechanics. What memories do you have of the development?

AK: I programmed a lot of the enemy mechanics, but I also did a lot of the programming on the background movement and objects. For example, the barrels exploding in the background. I remember trying to make sure that those objects moved naturally. And the planners seemed really impressed at that. My programming skills were not very advanced, but they seemed impressed at my ability to make things look and move naturally.

"I liked Irem games, like the shooting game called R-Type. *That is my favourite game and one that has been most influential for my career."*

BB: Since this was your first game, would you say it was a good learning experience?

AK: Irem had a pretty extensive training period before we were allowed to work on a project. I learned a lot during the training sessions from my mentors. Also, the main programmer during *GunForce II* was a veteran who worked on [shooting game] *Image Fight*. He taught me a lot about the fundamentals of video game development.

BB: How long was the training period?

AK: I remember it to be about six months.

BB: Other companies, like Capcom, had dormitories and training courses for new employees. Is that the standard at game companies even today?

AK: I think it depends on the company, but the thing that is different today, compared with when I was starting out, is that students have access to development tools, such as Unity and Unreal Engine, at home before they join the company. So the level of proficiency with programming is higher for new employees today. Many new recruits nowadays are placed in a project much quicker, especially programmers.

BB: *GunForce II* and *Metal Slug* were famous for the big sprites you see on-screen. Big art, lots of animation. What do you remember about trying to get that much movement programmed into the game?

AK: I only worked at Irem for two years so I didn't work on too many titles, but, as you mentioned, the artists at Irem are rather famous for their skills, and there were many pixel artists. They were famous not just for the quality of their pixel art, but also for the high number of sprites and frames of animation they draw to maintain the smoothness of the motion on-screen. In addition, there are many enemies and a lot of bullets flying past. We would want to try to maintain a 60 frames-per-second rate, but the rate was always dropping and it was very challenging to maintain a consistent frame rate.

BB: I assume, like others in the gaming division at Irem, that you left because they shut down the gaming division in Osaka?

AK: It's been so long, so I don't remember the details of the situation, but, about two years after I joined Irem, they closed the Osaka office. They had an office in Ishikawa prefecture and that remained open, but, because they closed the Osaka office, I left the company.

BB: The Osaka office was where the console games were made, correct?

AK: Yes, but are you familiar with Granzella? Mr. Kujo at Granzella used to work in the Osaka office and, I believe, moved to Ishikawa to make console games for Irem. After making games for Irem for a few years, he left to make Granzella.

BB: How did *GunForce II* prepare you for working on *Metal Slug*?

AK: The core members of *GunForce II* are the members who also worked on *Metal Slug*. The main designer, Akio-san, the sound designer you mentioned earlier, Hiya-san, the artist, Okui-san. We had already worked together on *GunForce II*, so there was a level of comfort and smooth transition in working together as a team, even though the company was different.

BB: What was your development environment like? Were you working on custom game engines created from scratch in assembly?

AK: I think it was full-scratch, but the fundamental structure of the game was based on the system we had acquired at Irem. The engine and framework was the same. But, the assembler or programming language was different. At Irem and for *GunForce II*, we used a CPU called 8086V-30, and for *Metal Slug* we used the NEOGEO 68000, so we rebuilt the engine using the new programming language.

BB: How was the experience of shifting to the NEOGEO? Was it a lot more powerful, and hence easier to use? Were you able to achieve a lot more?

AK: Yeah, it's hard to remember since it was so long ago, but… this gets a little technical, but there's what's called a register that is used to calculate and run the engine. The number of registers was much higher in the 68000. And the hardware also allowed for more sprites than the Irem system. The memory was also greater. So, overall, I suppose it was easier to make than the system at Irem.

BB: Was the RAM allocation larger, allowing you to do more things with the NEOGEO?

AK: I think so.

BB: Did you have to do any programming tricks to get the most out of the hardware?

AK: One thing I remember is that the sprite tools were quite advanced at both Irem and SNK. At other companies, they used 'map-chips' that were 8x8 or 16x16 pixels. The size of characters was pretty standardised. And, if you wanted to move bigger characters, it required more sprites and memory. But characters are never a perfect cube, right? There are empty spaces within the square pieces, so we would 'cut' them to minimise the memory and number of sprites required to move the character. That was a practice we brought from Irem to SNK.

BB: So, the bigger characters are not made up of one map-chip, but a combination of many moving in unison?

AK: Yes. For example, if we wanted to display a slash mark, two edges have no colour so nothing has to be displayed in that transparent area. So, we would cut around the slash to save on memory.

BB: It's similar to 3D rendering, where they don't add polygons to areas that are not visible, so as to save memory.

AK: Yes, that's probably a good comparison.

BB: Did you have to give artists any limitations on what should be possible in the game?

AK: The programmers didn't request the designer, meaning Akio-San, to keep restrictions on the artwork. He wasn't stubborn or someone who you couldn't convince otherwise. He was a super nice guy. But the people who joined Irem at the time were all people who respected his work. To me, he was like a god. And, like I said, he was a nice guy. When I think back to that time, the planners were inspired by him and trying to bring Akio-san's visions and artwork to life. Of course, there were times when we wished the quality and quantity weren't so great, because it meant more work for us. But, in the end, we were all inspired to try to bring to life his beautiful drawings, and we joined Irem to do exactly that, so we were more than happy to oblige.

> *"[Akio-San] was a super nice guy. But the people who joined Irem at the time were all people who respected his work. To me, he was like a god."*

BB: Do you still keep in touch with Akio-san?

AK: No, I have no connection with him. He's not the type of person to do social media.

BB: It seems a lot of people have lost contact with him.

AK: He's old-school and a craftsman, so he's not the type of person to talk to the media.

BB: Was there anything that he created that was too difficult or that didn't make it into the game?

AK: There may have been, but I don't remember.

BB: Do you recall the pipeline of how the artwork was received and made its way into the game?

AK: In general, the planner would come up with a planning document, but this was before *Microsoft Word* or *PowerPoint* documents, so everything was handwritten. Based on that, the designer/artists would draw pixel art of characters and environment. The pixel art would then go to the programmers, including myself, and I would 'cut' the images, as I mentioned earlier. But it's possible that Akio-san, being the visionary that he was, would just start drawing characters and inspire the planners. So, it might not have been a linear process.

BB: Was it an exciting time to be making video games?

AK: It was super exciting. I don't know what game development is like in the West, but there have been cases of people dying from overwork in Japan, so compliance regulations have become very strict about working overtime and working on the weekends. Nowadays, people are sensitive about working overtime, but, back when we were making *Metal Slug*, there were no work-hour restrictions. Plus, we wanted to be there. We happily worked overtime, you know, slept at the office, got up and worked some more. I'm grateful that we were able to work in the gaming industry during those peak times.

BB: That's fun when you're young and before many people had families yet, right?

AK: That's true. If the same [time commitment] was required of me now - I have a family now - it might be difficult.

BB: You didn't work on *Metal Slug 2*, correct?

AK: Yes, I only worked on the first *Metal Slug*. I also worked on the NEOGEO CD, which was a NEOGEO system with a CD that had to be installed and ran on a limited amount of RAM, so the memory of the graphics had to be optimised. So, I also worked on the porting of *Metal Slug* to the NEOGEO CD.

BB: The loading time was extremely long on the NEOGEO CD. Do you remember the challenges of making the original cartridge version somehow work on the CD system?

AK: You just mentioned that the loading times were really long, but I remember working so hard to get it even to that point. [Laughs] I mentioned earlier that the Irem artists were known for their detailed pixel art and also for the sheer volume of frames drawn. The animation was very detailed to smooth out the movement on screen. Removing even half of the frames wasn't enough to fit the game on the CD. It was a real challenge.

BB: So the NEOGEO CD had only half the animation of the cartridges?

AK: Yes, the quantity of the dots per screen is the same, but the quantity of the animation frames is less than half.

BB: It would be interesting to see a side-by-side comparison now.

AK: The SEGA Saturn version is probably better.

BB: The Saturn had the memory card slot. Did the Saturn version of *Metal Slug* use the optional memory cart, as well?

AK: I wasn't involved in porting the game to the Saturn; but, if I remember correctly, the Saturn version used the additional cartridge, so that added to the memory size of the game, and I suspect that they were able to keep more of the animation.

BB: You didn't work on *Metal Slug 2,* but surely you've seen the game running. *Metal Slug 2* was kind of notorious for the slowdown in the game because there was so much graphic detail. But the frame rate for the first *Metal Slug* was still very good. Just from an observational standpoint, do have any idea why they had problems with the slowdown?

AK: It's difficult to say because I haven't really looked at the game closely, and I wasn't personally involved. But the main programmer would have been the same, so I'm sure they had their reasons.

You've been saying 'SNK', but the company I was at was technically Nazca. After I left, Nazca merged with SNK, and the members of Nazca joined SNK. Maybe there were some changes to the way they made games as a result of the merger.

BB: It's interesting that you mention the distinction between Nazca and SNK, because, according to Kazuma Kujo and Takushi Hiyamuta, although Nazca was separate from SNK, they were fully subsidised by SNK. So, it's like they were a division of SNK.

AK: I see. But, we were physically separate from SNK. We were located in a different building.

BB: We hear that development in the '90s was chaotic or less organised, and the code wasn't preserved carefully and often lost, but it seems either the *Metal Slug* team or SNK was careful about archiving the code and the art, because *Metal Slug* has been ported to nearly every modern device since. Do you remember how information was archived?

AK: I don't remember archiving my work, no. However, we were taught during our training at Irem to leave comments and notes in the source code. For example, explaining what each formula is calculating and the reasoning behind the code. I think that, comparatively speaking, I was pretty careful about leaving notes in the code. That makes it easier for the programmer in the future to follow the code, and might have led to the preservation of the code.

BB: Why did you leave Nazca after *Metal Slug*?

AK: It was really fun working at Nazca, but I was young and… I was really into black bass fishing [lure fishing] at the time. So, I quit my job and spent all my time fishing. Even while working on *Metal Slug*, I spent all my free time fishing and wanted to spend even more time fishing. So I quit my job. [Laughs]

BB: We all have hobbies, but it's difficult to imagine quitting a job to go fishing. How long did you fish before you realised you had to get a job again?

AK: A few months, but I continued fishing for many years.

BB: No wonder fishing games are so popular in Japan.

AK: Yes, there used to be a lot of fishing games. Games with fishing peripherals.

BB: Do you miss the programming days, or do you prefer what you are doing now in a managerial role at PlatinumGames?

"It was really fun working at Nazca, but I was young and… I was really into black bass fishing [lure fishing] at the time. So, I quit my job and spent all my time fishing. Even while working on Metal Slug*, I spent all my free time fishing and wanted to spend even more time fishing."*

AK: I feel that the work I do now is a better fit for me. It's hard to compare, but the experience of being a programmer and the lessons I learned as a programmer were valuable and help me do my current job better. That experience also led to me getting to talk to you today. But, I feel I'm better at interacting with people than I am being a programmer. My current job allows me to communicate with people around the world, so I'm really happy with my job at the moment.

BB: Do you have any crazy/interesting/funny stories from your time working on *Metal Slug*?

AK: My main responsibility on *Metal Slug* was to program the moving parts in the background. All the backgrounds in the game were programmed by me. The backgrounds in *Metal Slug* were not static but very chaotic, and things are always crumbling and exploding. For example, there are bombs exploding or reflections of the characters in the water puddles. I think in Mission 3, it's the snow stage and as the characters are walking, you can see pieces of snow falling off. I remember working so hard on those fine details. I'm very proud of that.

BB: That's one of the things that's cool about *Metal Slug*. The attention to detail, and all the things happening simultaneously. It still holds up today. It's an amazing piece of video game art, unlike anything else.

AK: When people talk about this game, they usually bring up the quality of the artwork and the pixel art. But the programmers were equally talented and contributed to bringing the artwork to life. So I hope people can appreciate that as well. There's one scene that I really like in Mission 3, the snow level I mentioned before. There's a building that collapses. I'm particularly proud of that scene because I put a lot of effort into that building. And the freeway that collapsed in the last level is another part that I remember working really hard on.

BB: Any last tips about *Metal Slug*?

AK: I think the best way to play is with an original arcade or NEOGEO joystick.

BB: We agree! Thanks for your time.

Shinichi Hamada and Takeshi Okui

Easily one of the most animated and insightful interviews conducted for this tome, Shinichi Hamada (main programmer for *Metal Slug 1*, stage programmer and boss gameplay designer for *Metal Slug 2*) and Takeshi Okui (artist/background artist, occasional character artist for *Metal Slug 1*) are two Metal Slug veterans who first honed their craft at Irem before moving on with most of Irem's arcade team over to SNK. Okui, in particular, assembled one of the most impressive post-SNK resumes, going on to work on games like *Final Fantasy VII* and *The Legend of Zelda: Breath of The Wild*. Meanwhile, Hamada – seemingly never in his ideal role – often took the bull by the horns in a game's development, and, via this maverick approach, often helped a game become better than it would have been if not for his intervention. The pair, together, offer some of the most revealing anecdotes of their time at Irem, and then, of course, at Nazca working on *Metal Slug*.

BB: Your first industry jobs were at Irem, right?

SH: Correct. I just loved *R-Type*. I was studying programming at a vocational college, and my number-one choice was Irem, followed by Capcom. I interviewed at Irem first, passed, and they made me an offer, so I took it.

TO: Me too. I actually got offered a tentative position at another company, but then I got an interview with Irem and Akio – master Akio – was my interviewer, and I was so enamored by him I decided on the spot I wanted to join Irem.

BB: Okui-san, you worked on *GunForce II*/*Geo Storm* at Irem? That was the last game you worked on there?

TO: We were still developing it when the company told us they were closing down. It was only half-done, and Irem had a booth at an arcade show, so I said, "Let's make this game!" And there was me, a programmer [Atsushi Kurooka] who joined Irem at the same time, and [Irem game designer] Meeher came in sometimes, too. So, it was mainly just me and [Kurooka] the programmer, putting all the parts together, finishing off or drawing anything that wasn't done. I think it took about two and a half months.

BB: So, the show you mentioned, the AOU Show [Amusement Machine Operators' Union] – that was going to happen even though the company's arcade game division was closing down?

TO: It was all booked already, and that was where *GunForce II* was going to be announced, so we were planning for it to be the game's first and last showing. It felt like a school festival; we'd go there, put the game on, show, celebrate, and that would be it. I couldn't believe it when I found out, a few years later, that game had been released, bugs and all!

SH: At the time, the Gulf War was underway and anything war-related sold. The order from the sales department was to include vehicles the player could control. I heard the idea was that, even if something wouldn't move, like a turret, players would at least jump in and try. It was the experience Meeher gained here, with *GunForce II*, that led to *Metal Slug*. Thanks to Okui and Kurooka, *GunForce II* was finished, so it was easy to sell.

BB: So, on to Nazca: How did you feel, developing a hardcore 2D action game on a system that couldn't handle 3D and was full of fighting games at the time?

TO: Personally, I just wanted to make an *R-Type* game with Akio-san, and I remember thinking that, if I go with him to Nazca, there's a chance. I knew there wasn't much chance, but getting to make a game with Akio-san was the biggest draw for me. But, at the same time, I was genuinely concerned that, if I didn't make the switch to 3D, I'd be left behind. [Development manager] Kawai-san had Nazca's solitary 3D development station and I asked him to let me use it, but he told me I'd have to wait until he'd learnt how to use it, which meant I never got a chance to check it. That was one of the things that led me to leave Nazca.

SH: From a programmer's perspective, I remember sitting down with Andy [Andoh Kenji, lead programmer] and Kuro-chan [Atsushi Kurooka, programmer] and taking a look at the PlayStation 1 and feeling more panicked than I've ever felt. I was thinking "I need to learn how to do this". But, on the other hand, I really wanted to make a game with Akio-san too. We joined Irem because we loved *R-Type*, so I was ecstatic to be able to make a game with the artist behind that game. This opportunity gave me a great sense of responsibility, and that outweighed any concern about 3D. If Nazca's first game didn't go well, that would be it for the company, so a second-rate job wasn't an option. Having said that, I – well, all of us – had absorbed a lot of knowledge about the art of 2D action games while at Irem.

TO: The new [NEOGEO] hardware was a challenge; it allowed us to do things we were never able to before, but it also came with restrictions we didn't previously have. For example, most of Irem's hardware – except for one of their last boards – couldn't do scaling. Actually, it couldn't zoom, only shrink. The NEOGEO could display big sprites and enabled us to do things like giving a sprite up to eight animation patterns without any real processing overhead, but the number we could display on a single horizontal line was less than Irem's boards could do. We needed to take care not to line up too many [sprites] together, meaning we had to restrict the use of parallax scrolling. Coming from Irem, parallax is something we wanted to use everywhere, but the restrictions meant we had to minimise it. Instead, we made the most of the ability to do eight animation patterns.

SH: At Irem, we made a lot of use of parallax scrolling using the raster method, but, on the NEOGEO, we couldn't do this. Well, we could, but not without putting a load on the system. What we could do, was use the background's VRAM to handle fixed animations. By fixed, I mean the animation played for a number of frames, then looped. We couldn't play three frames and then six; it had to be the same each loop. That's what Okui-san was talking about when he said "eight animation patterns". At first, we weren't even sure how to best use this, and the background team had an especially tough time. So, when I first saw the waterfall, the one on the first stage which Okui-kun drew, I was blown away. WOW!

TO: Really? I thought that would be pretty easy because water lends itself to looping animations. The real difficulty was that the tools we were using at the time, ones we brought over from Irem, didn't allow us to animate the whole screen at once - just one sprite at a time, no 2x2 or 4x4 blocks, just one sprite at a time - so I had to draw the waterfall in bits and then put it together, check it and refine it.

SH: Speaking of tools, there were official NEOGEO tools, but they were designed with fighting games in mind, and they weren't designed with a viewer to line up sprites horizontally either. So, when we started Nazca, we asked the guy who wrote Irem's tools, Kitabayashi-san, who had gone freelance at the time, to write tools similar to the ones we used at Irem.

BB: How about the designers; what setup did you use?

TO: Oh, we used a mouse and a PC98, but it didn't have a hard disk, so we had the OS and tools on floppies and had to save all the data to floppies too. We didn't have layers to work with like you do now.

> *"Once, [designer] Kui-chan was testing the game and it caught fire, and he jumped up and everyone shouted 'Are you alright?', but they meant the RAM board, not him!" – Shinichi Hamada*

BB: So, how did you check your work?

TO: Well, at the end of the day, I'd save everything off to floppy disks, label them with what part of what screen they contained so, when I came in the next morning, I could hand them off to the programmers so they could implement my work.

SH: It wasn't easy to check. We'd just have a static background at first, and add the animation later, or sometimes have a sprite on top of one part and animate that.

BB: So, how about the programmers; what did you use?

SH: I think it was Windows 3.1, but, for the most part, we just used a text editor to write the source, then use Makefile to compile it using a NEOGEO compiler into a binary. This was then sent over the office network to a PC98 and from there burned to a ROM. The ROM was then tested on NEOGEO hardware, so there was no emulation. We used an ICE [In-Circuit Emulation, a hardware-based debugging tool] with break-points set on it to debug the game.

BB: So, checking the game was a pretty laborious process?

SH: At Irem, burning data to a ROM would take about an hour. Updating the program only took a few minutes, but it was the graphics data that would take the time, and this didn't change at Nazca. For *Metal Slug 1*, we had a NEOGEO test board with a load of 8 mega RAMs plugged in and, because we used all 32 megabits, updating it took ages: but the hardware division at Nazca developed two prototype RAM boards and we could update them much quicker. After that, we used them exclusively, one for the beta version and one for the debug version, but they were only prototypes, so, if we overused them, they'd catch fire. Once, [designer] Kui-chan was testing the game and it caught fire, and he jumped up and everyone shouted 'Are you alright?', but they meant the RAM board, not him!

BB: How did you erase the data?

SH: The chips had a little 'window' on top and you'd have to shine a UV light into it, but it was a slow process.

BB: So, apart from the Irem tools and the official SNK ones, did you receive support from SNK proper?

SH: Yes, they had a support team and they would answer our questions, but, because we were learning at first, I don't think we started development on the game until summer that year. The designers might have started a little earlier.

BB: What do you remember of how *Metal Slug* came to be? Whose idea was it, initially?

SH: That's something you'd have to ask the game designers, but I did hear that Nishiyama-san, SNK's head of development at the time (and a very direct person) said, "Why don't you just make an *R-Type*-style game and golf game?". But Meeher didn't want to just do the same thing again, so they decided to do something new.

BB: So, it was Meeher who was discussing this with SNK?

SH: Kawai-san was the primary point of contact and the top of Nazca, then there was Akio, in charge of design, and Meeher, who worked really well with Akio, along with [designer Kazuma] Kujo-san, who oversaw game design. For programming, Andy was the boss and Hiyamuta-san was in charge of sound, and he did an amazing job.

BB: Wasn't it quite rare at the time to have a dedicated game designer? A lot of the time, wouldn't it be the programmer or artist who fulfilled that role?

TO: It wasn't so much that anyone was the game designer, but more we didn't have directors at Irem, so the game designer (planner) would be in charge of overall game direction too.

SH: We didn't have that many people to a team back then; only four or five. *Metal Slug* was a little unique, and it also had two game designers involved: Meeher and Kujo-san. Of course, Akio was in charge of all the art, Andy designed the system, the task system, then I used this to design the scrolling terrain collision. Then Kuro-chan joined as a sub-programmer. Then there was another team developing a golf game called *Neo Turf Masters*. We had a couple of new recruits join, and then Hiyamuta-san was in charge of the sound and Takada (Pierre) provided tool support.

BB: So, Nazca was developing *Metal Slug* and *Neo Turf Masters* at the same time?

TO: Kawai-san was diligently working away on the golf game on his own!

SH: When we showed *Metal Slug* at the AM Show [Amusement Machine Show], we still only had four stages. After that, it was put on location test for a month with just the first stage, but the income was not there.

BB: Was there any buzz surrounding *Metal Slug* at the show?

SH: The graphics got a lot of praise, but it wasn't 3D and it wasn't a fighting game either, so, to a lot of people, the impression was that there were "still some companies working on 2D action games!" *Gamest* [long-running Japanese arcade game magazine] gave us 'Best Graphics' when we released, but, even then, the coverage wasn't huge. Anyway, we held two location tests, both with different control schemes, but neither of them went well. Most people were giving up on the third stage or thereabouts.

TO: Before I left Nazca, I was playing around on a build at Kurooka's desk where the player character had been switched to a human soldier, and we were both saying how much fun it was.

SH: About a month after the location tests, while the game designers were trying to work out how to improve the game, the programmers had very little to do, so, while I was waiting, I put together a little demo using a soldier to make a jump-action game. I was already working on all the animation programming anyway, so it was a simple thing to do. I showed it to Meeher and Kujo-san to see what they thought, hoping they'd see the improvement. Three days later, the decision was made: we're going to make the player character a human (yay!), but we're keeping the Metal Slug in there (eh?), and the player can get in and out of it (ehhh?) and the player character needs to have an independently animated upper and lower body (what!?).

So, it worked, and, despite the extra work it created, I believed it would be more fun, and I think everyone else did too. But I think Meeher was a little disappointed because he wanted to attempt something different from *GunForce II*, but it ended up very similar in concept. However, he did say that, thanks to *GunForce II*, he was able to avoid making the same mistakes in *Metal Slug*, so that was a plus. Thanks to this, we were able to add parts with vertical scrolling, or elements where you had to jump out of the tank. The final stage was actually added after the change to a human player character.

> *"We used to colour the graphics with this 'blending' in mind, so, when I first saw the graphics on an LCD screen, I was not pleased with the results!" – Takeshi Okui*

BB: That first version of the game with a two-button control scheme was in *Gamest*, but then the following issue had a four-button control scheme.

SH: If I recall correctly, the first scheme was just two buttons: shoot and jump; we didn't have a bomb button then. It wasn't ideal though, because you couldn't aim freely. After the first location test, the programmers were asked if we could switch the control scheme over to plan B, which was what was in that second issue of *Gamest*.

With that second scheme, you could aim freely, even while moving around, which was an improvement over the first, which, due to the smooth animation, was a little sluggish. In a word, we were aiming to relieve that stress from the player so they could enjoy the game, and we were successful, but not in solving [how popular the game was] which is what eventually led to changing the player character.

BB: Did you go and see the location tests?

SH: I did, yes. They were close to where I lived at the time.

TO: Me too, I went and that's where I told everyone I was leaving: "This is my last day."

BB: So, you left before the player character was changed?

TO: Yes. I knew that would mean some things would be changed, but I had put a lot of time into setting up the palettes so more colours could be used on the backgrounds, so when I saw the finished product I was shocked. "Where did all the colours go?" You could only use 16 colours, but I fiddled with the palettes to squeeze the maximum number of colours out, but a lot ended up being simplified and much fewer palettes were used. I was really disappointed when I saw it.

SH: That used to happen at Irem; there was an upper limit to the number of palettes that could be used, and the artists used to fight over who got them.

TO: Maybe at Irem, but, on *Metal Slug*, we'd decided how many would be used for the backgrounds, and how many each person got, so I worked within those limits.

SH: [To Okui-san] When I look back at the work on *Metal Slug* and at Irem, Akio-san and Okui-kun's work really was top-class. Even when I talked to other artists working on SNK's fighting games, they weren't paying as much attention to the details as our team was. You guys really were artisans and I think, being surrounded by other artisans, maybe you didn't realise how good you were; that was just the norm.

BB: Okui-san, did you work exclusively on backgrounds?

TO: Well, I'm not sure whether I should say this, but the initial assignment was that we had the master, Akio-san, at the top; Noma-san drew sprites - the tanks and enemies and other stuff; Susumu-san was on backgrounds, along with Tanaka-san.

Akio-san told me I could work on characters or backgrounds as I pleased, but, after a while, Akio-san called me over and told me "Tanaka-san can't draw so can you take over his background work?" I was a little surprised, but Tanaka-san himself said he couldn't draw, so that was that! That was pretty early on, and all I remember is Tanaka-san drawing lots of women.

To be honest, Tanaka-san's style didn't match Akio-san's team, so I had a feeling something like that might happen. When I'd finished with the backgrounds, I started drawing NPCs like the villagers, the animals and even the small UFO, and then I'd get Kurooka-san to implement them.

BB: For an action game, it has more than its fair share of non-playable characters. Generally, that sort of thing would only be added if there was time because it's non-essential to the gameplay.

TO: Yeah, but having houses with no people or forests with no animals would be odd, right?

BB: Who designed the Nazca logo?

SH: We all pitched in our ideas. The company name itself was decided on: 'Nazca'. It sounded mysterious and was being talked about at the time [in Japan]. I think it was Tanaka-san who made the suggestion.

TO: So, we all drew up some designs, but, in the end, Kawai-san decided that something less flashy worked best, and the logo you saw was decided on. I'm not sure whether he outsourced it, or what, but that was it. We were all a bit crestfallen.

BB: Who decided on how a level should look? Did that come down from Akio or was it from the game designers?

SH: The game designers only designed how the level would play and the terrain layout on a big piece of squared paper; basically just a series of lines.

> *"When I look back at the work on* Metal Slug *and at Irem, Akio-san and Okui-kun's work really was top-class." – Shinichi Hamada*

TO: Something like this [displays some of his artwork in an album]. Oh, no wait, this was what I drew based on what the game designers handed me. I'd receive the basic stage layout with some instructions as to how the stage played, then I'd go about designing terrain and the background based on that. When I'd finished, I wrote out instructions for the programmers to implement the data; what data went where, if it moved and how. So, here's the waterfall on the first stage and the instructions on how it should be animated.

SH: I think the first stage was Kujo-san. His style was quite different to Meeher's, in that his stages would let the player charge forwards, blowing everything up if they wanted, but, if they got too carried away, there would be something to kill them off with a single shot. The first stage had dynamite and exploding barrels everywhere, so there would be things exploding and being destroyed left, right and centre. That meant the graphics needed two patterns; one before destruction and one after.

BB: It's a lot of extra work for something that doesn't have a direct relation to the game.

SH: True, but making a game that's fun is not just about having enemies attack you and the player defeat them; it's about where the enemy is, or where they might pop out of. Even being able to damage the scenery gives the player some feedback that suggests maybe an enemy is hidden there. This may just be my own design philosophy, but it's how I interpret Kujo's work too. These little things entertain the player without putting them under any real pressure.

BB: I suppose you're giving the player the freedom to play as they like, so no two playthroughs seem the same.

SH: Exactly. A lot of these things are probably only noticed subconsciously, but they contribute to how the game 'feels'. And they're also a lot of work to implement!

TO: [Points to the album of his background art and NPCs] Here are the civilian houses, and some of the civilians I drew go here. There's an old lady, a child… When you fire at them, they run off screaming! There was an old lady holding a cat, then there were chickens, otters, fish, flies (which flew around the fish hung up on the first stage).

BB: There were flies?

SH: Yup, we used them on another stage too; the second? There was a UFO too, right? We used that idea and expanded on it for *Metal Slug 2*. That was another one of Metal Slug's strong points: there are little things to see and do hidden all over the place, so the player doesn't get bored after one playthrough, even if it's the same stage.

BB: Were these planned for even before the switch from tank to human?

TO: The truth is, a lot of them I made myself because I was disappointed in not being able to work on the characters. On *GunForce II,* I got to do both, so that's what I really wanted to do with *Metal Slug*.

BB: It's interesting that the trend with pixels now is that a lot of people want to see each one clearly, but the graphics back then weren't designed with that in mind.

TO: Not at all. Blacks seem smaller, whites larger and colours blend into each other. We used to colour the graphics with this 'blending' in mind, so, when I first saw the graphics on an LCD screen, I was not pleased with the results!

SH: No need to show everything so clearly, right? When I show these graphics to students, some of them think they're 3D because the shading is done so well.

BB: Were you using anything for reference when creating the backgrounds?

TO: Back then, we didn't have the Internet, and I don't have any clear recollections of referencing anything in particular. The submarine in *Metal Slug 1* was actually my little creative homage to *In the Hunt*. And, now I think about it, when I joined Square and worked on *Final Fantasy VII*, I drew a submarine there too.

BB: The backgrounds in *Metal Slug* really are fantastic.

TO: The NEOGEO's biggest merit was being able to animate several things at once, or even use that to animate a large area, without slowing down. This was something I'd never been able to do before, so I wanted to experiment with it.

SH: When I talked to other programmers and other teams, it seems that most people preferred not to animate all these separate sprites, but Okui-kun dove right in and pieced together that amazing waterfall with animation all over the screen, but, with no performance hit, this was amazing. Irem's boards just weren't designed for animating the background or large areas of the screen.

The pre-human version of *Metal Slug*'s third stage had a great first half too; the tank was driving through this snow-covered forest, and there were tree trunks in the foreground and background with soldiers trying to creep around them and attack. That all got cut and we ended up with the player jumping up a series of snowy ledges. It's a shame; I really liked that part.

BB: *Gamest* mentioned there were soldiers who would cling onto your tank and drop grenades inside.

SH: Yeah, there was a large soldier sprite used for the foreground in that version. It was really cool; the first one or two screens had all these soldiers trying to sneak around without being seen by the Metal Slug, and the real battle started just after that. Just thinking back to that and the finished product, you can see that the graphics team were churning out huge amounts of art and animation, and that was the norm to me. It wasn't until I joined another team that I realised how far Akio's team was above the industry average.

BB: So, there was some initial concern about not developing a 3D game, but that quickly faded?

SH: I was concerned, but Akio's team was a 2D art team, so there was no choice in that respect. I was more concerned about the market trend being for fighting games and *Metal Slug* being a side-scrolling action game, but I also thought that, if we made it great enough, that difference would help it stand out.

However, when we released *Metal Slug 1*, it only seemed popular with core gamers. There was an organisational change in SNK after that, and Nazca ended up part of Software Development Division 4 on the 3rd floor of SNK's building. Not long after that, we started development of *Metal Slug 2*.

BB: But wasn't *Metal Slug* more popular than you thought?

SH: It sold well overseas for one, and there also weren't many other action games at the time; *Top Hunter* was probably the best one available on the NEOGEO. We actually used it as reference, but we were confident that the work we did on *Metal Slug* put us above it, in terms of gameplay. Despite this, the mass media didn't rate us much differently, so we were sulking again: "Maybe we should just make a fighting game?" But we ended up making a sequel all the same.

BB: Did you get much feedback?

SH: The only feedback we had was *Gamest* and actually watching people play in the arcades. The players were reacting a lot better since we switched the main character from a tank; the most obvious change being that one of them would die and be watching the remaining player and laughing at all the carnage and little jokes. So we knew it was fun, but the market focus was still on 3D and fighting games. We also knew we could make *Metal Slug 2* better than *Metal Slug 1*, because we had the experience now of working with the hardware and developing the first game.

BB: Was that ambition what resulted in some of the slowdown on *Metal Slug 2*; that you added too much extra?

SH: To be honest, I hadn't noticed that until you asked, but there is some noticeable slowdown. The truth is that we changed and improved many of the underlying systems for part two, and I swapped roles with Andy; he was the main programmer and I handled the systems. I remember him saying, "I'm going to rewrite this code," and he did too! Anyway, the first game was based around the tank being the player character, and the image was based on the *Dominion* anime, but the inspiration for the programming came from Masaya's Super Famicom Game, *Assault Suit Valken*.

When I wanted some inspiration for making the tank look and act like something with weight – but, at the same time, to still look cool – that was the game I went to. Especially the way you jump in that game; you're heavy, so you land with a thud, but it never gets in the way of the player's enjoyment. The way we handled the terrain changed too; Andy changed it so it was now on a line which we set via the code, making it easier to check how things would work in the viewer without performance being affected. Anyway, I ended up programming the stage management part.

BB: So, you were working with the designers; were they handing you design documents?

SH: Exactly. For *Metal Slug 2* I was working with Susumu-san, who always kept me on my toes with seemingly un-implementable stage layouts: "How am I going to get this to scroll well…?!" I learnt a lot about programming and game design, working on the sequel. I think the slowdown probably came from us being able to do a lot more in *Metal Slug 2,* and that having an effect on performance in some places. From the perspective of the system, *Metal Slug 2* was much better built than *Metal Slug 1*, but I guess we got carried away. This is likely most noticeable on Mission 1, because we still weren't sure where to draw the line.

Meeher's stage design philosophy differed from Kujo-san's in that Kujo-san would allow the player to charge ahead, killing them if they got carried away, but Meeher would make it so the player could appreciate each trap and gimmick, using what we called 'scroll stops'. So, the player would be moving between set pieces and defeating the enemies before moving to the next. With *Metal Slug 1*, the stages alternated between these two styles, but, from *Metal Slug 2* onwards, it was Meeher only. The first part of Mission 1, especially leading up to the truck with the troops and baby inside, is where things slow down and there's just too much going on for the CPU to handle, I think. A lot of it is due to the new way we were handling the terrain, and, after the first stage, we got better at balancing the CPU load, so there shouldn't be much slowdown. There's a part on the second stage where, if you destroy five or six mummies at the same time, it slows down, too.

TO: We used to say that slowdown was a part of the game at Irem. Some games, you relied on the slowdown to be able to complete them.

SH: *R-Type*'s a great example! In general, though, as a programmer, slowdown is actually pretty embarrassing. When I look back at it, it seems intentional in parts, but, at the time, I was disappointed I couldn't fix it. The flip side of that for *Metal Slug 2* is the new terrain implementation meant the Metal Slug itself used less CPU and we could do more without needing to spend extra time making things like the Slug Flyer, which Andy added in *Metal Slug 2*.

One thing I'm proud of in *Metal Slug 2* is that Andy let me improve the player collision during jumps. Andy had the game looking at the centre of the player sprite when it jumped, and checked the collision that way, but, in Metal Slug, characters spread their legs out when they jump. Andy's system meant that the player would feel like they made the jump because their lead leg was touching the platform, even though they didn't.

I actually put up with this for a month or so, but, after that, I just asked him to let me do it; and he said "If you like." So I changed how the collision worked, but this meant I needed to change the animation a little too, to make sure it didn't jump to an odd frame, so I went to talk to Akio and he said "OK, but if you'd told me sooner I could have drawn the extra frames."

> *"So, after getting this hint from* Virtua Fighter, *I went back to Akio and told him I wanted to change how the game handled the ducking animation." – Shinichi Hamada*

BB: From a player's perspective, *Metal Slug 1* and *Metal Slug 2* look very similar, but behind the scenes they were actually quite different?

SH: I think we changed about half of the game's systems in the end, but that's why I wanted to make sure things like the basic jump collision worked the same between the two games. We were trying so many new things with both games, I'm not surprised things got behind, but I still think, if you want to make a game with that much detail packed in, you need a certain amount of time to achieve it, just like *In the Hunt*. I think, as a programmer, both Andy and myself were focused on making the graphics faithful to the artists' vision, but also making them interactive. I think that was the common theme for all the programmers.

BB: Again, Akio and the other artists are your driving force?

TO: We chose this career and Irem, initially, because of *R-Type*, after all.

SH: Speaking of Akio, he drew so many frames for the tank's ducking motion in *Metal Slug*. When the tank ducks, it wouldn't be just an in-between frame and the 'duck' position: there was a frame indicating it was about to duck and some others in between too, but, as a player, you just want the tank to duck immediately, so I was at a loss as to how to handle it. It was then that *Virtua Fighter* came to mind. In that game, because it's 3D, motions can be cancelled, so, if you begin to duck and then release the stick, the character will return to a standing position without fully ducking.

So, in *Metal Slug*, there's three patterns for ducking: one where you duck, but decide quickly to cancel it; one where you return to standing from a ducking position, but quickly duck again, cancelling the standing position; and just the normal standing-to-ducking. So, after getting this hint from *Virtua Fighter*, I went back to Akio and told him I wanted to change how the game handled the ducking animation, and he said, "OK, but I'm not drawing any more frames," so I used what he already made and changed the implementation. I used this way of thinking when I approached the animation for the Slug's gun too; it still looks smooth, but it doesn't affect the playability.

BB: No one would ever guess that *Metal Slug* drew reference from a 3D fighting game!

SH: Well, I was a big fighting game fan, and I was playing a lot of *Virtua Fighter* at the time. Just imagine; Akio drew 12 frames for the ducking animation!

BB: Was Akio that fast at drawing or did he just take a lot of time over it?

TO: I'm not sure. There was a huge amount of assets to be created, so it's difficult to tell; he wasn't particularly fast or slow, I think.

SH: I talked to some other SNK artists and they were always amazed by the amount of output from the *Metal Slug* art team, so I don't think it was just Akio, I think it was all the Nazca artists.

BB: There's a lot of concept art for *Metal Slug 1*; when was it drawn?

TO: Most of it was after the game was finished, I think. I never saw anything close to a rough drawing while we were in development; most of it was not much more than a scribble.

SH: I think that was Tanaka-san (Max-D). It's either new stuff, or art based on rough designs produced during development. I remember him drawing a really futuristic tank and Akio-san giving him a thumbs down and redrawing it!

BB: So, was the concept art all Max-D?

SH: No, some of it was him, some was Akio, Susumu, and Tomohiro. There was a gap between finishing *Metal Slug 1* and starting *Metal Slug 2* while we were working on the CD version, so we decided to add some extras and everyone pitched in.

Thinking about it, we started the CD version straight after the ROM version, and most of the work was program-related; the CD could only fit 32 megabits onto the RAM, so we needed to cut out some of the in-between frames in the animation, taking care not to make it look obvious. Of course, we needed to get Akio-san's OK, and sometimes we'd get "That's too much!". And, somehow, we managed to fit it all in 32 megabits.

BB: So, *Metal Slug 2* followed quite soon after the version of *Metal Slug 1*?

SH: Pretty much. We'd pretty much done all we could with *Metal Slug 1*, but *Metal Slug 2* was a set of new challenges. I was a little disappointed not being the main programmer again, but I decided to do all I could from the system side. We had some issues where, with a second player, if each tried to go a different direction, bits of the screen with no graphics on them could be seen. To avoid this, we set lots of scroll blocks up throughout the levels. Then, on the third stage, on the train, near the end when you can see the lake underneath the rails, Susumu-san only drew enough for two screens, so if it scrolled slowly, it was clear there weren't any graphics. When I asked Susumu-san, "Could you draw some more, please?" he replied, "Oh, do something about it with the code," so I gave up and fixed it. All in all, I think we had six months to develop *Metal Slug 2*.

BB: Looking back, it's amazing to think that *Metal Slug*, held to be one of the finest 2D action games, and *Final Fantasy VII*, hailed as one of the finest 3D JRPGs, shared a staff member.

TO: Thanks. By the way, my latest work was on *The Legend of Zelda: Breath of the Wild*. I was an environment designer. I remember thinking that maybe some of my Irem DNA would come out!

BB: I think most people are interested in 'Metal Slug Zero' because it only exists as screenshots in magazines now.

TO: The version with the tank as the main character?

SH: Yes, the one where you rescued the white soldiers and they became like options for your tank. They moved around on their own and helped out the player. The half-naked guys with beards weren't introduced until much later. I think they climbed on your tank and fired their weapons too.

BB: Could they be hit?

TO: I think they acted like a shield, protecting you from one shot.

SH: Andy and I programmed that whole system, so we were pretty sad to see the whole thing scrapped, but it was all for the best.

BB: Could they use the turrets too?

TO: I remember this! Yeah, they could.

SH: Yup, we developed all that too. Then scrapped it! It's a common tale in game development.

BB: What are you most proud of?

TO: It's not pride, but rather regret that I couldn't be there to finish the game off. But, more than, that I wish the original version still existed. I'd love to see it now. The only thing I have is what I drew.

SH: The version the fans call 'Metal Slug Zero'? Me too, but we didn't make backups; we just rewrote the ROMs. That first level… I remember how lush the jungle was, all green and dense, then you exit it, see the waterfall; that's what I'd like to see again. Then that snow scene in Mission 3: ah, that got changed in the final game, the details on show! Any other designer would have just drawn some uniform rocks, but Okui-kun drew these angular things.

SH: Did you refer to anything, or was it just what came naturally?

TO: I just thought it looked good, to be honest.

SH: That's where the difference between top-class and just good is. I think, with *Metal Slug*, one of the first things people see and love is the background; all you need is a screenshot to tell whether you want to know more about that game. *Metal Slug* had it, and I think Akio's team at Irem, their games had it. You see a screen and want to see it moving, then you want to play it, and, before you know it, you're hooked.

BB: What else are you proud of?

SH: Well, Andy wasn't called the wizard for nothing; he was an excellent programmer, but I was in charge of the part that the player interacts directly with: the character animation. Of course, I was also a fan of Akio and his team's art, so I took great care to make their artwork shine, not just as an animation, but also as part of a game. And, as a programmer who loves action games, I was mindful of how the game worked in that respect too.

Programmers' work tends to go unseen, and, depending how a player interacts with the game, some parts might be totally missed; but I was influenced by working with Kujo-san and Meeher in that matter. They wanted the player to focus, stress-free, on a single part of the action at any one time, so they could absorb everything that was happening and enjoy it. You may not notice that with *Metal Slug*, but it's something you realise when you play a less polished game. I was proud to be able to support these two teams.

TO: I'm most proud of being able to design alongside Akio. I mean, he was the person I looked up to before I entered the industry, so being able to work with him was big.

SH: Near the end of the project, we were working long hours and sleeping at the office. We'd finish up around 2:00 or 3:00am, say goodnight, then get into our sleeping bags and go to sleep, waking up the next morning before 9:00am to start again. But, despite that, the sheer joy of being able to work with Akio, on a game which we were confident of, kept us going. Was it an ideal work/life balance? Probably not!

TO: It wasn't, but I didn't really think much about it because I loved what we were doing. On the contrary, I wanted more time to draw more and better.

SH: We'd all be up around 9:00am and work through until about 8:30pm, and take a break for 30 minutes to get food, then go to the local baths and take a shower, then we'd come back and work until about midnight. After that, we weren't working full-on anymore. Akio would often come around to my desk and say something like, "Hama-chan, I've brought a game we can use for reference, can you finish it?" then I'd play it while Akio and a few others watched. During *Metal Slug 2*, he was buying lots of PS1 games and he'd bring them over at night and – as I was the biggest gamer on the team – he'd ask me to play.

BB: Akio-san's well-known for slipping in the odd visual joke – that boss in *R-Type* and the last boss in *Undercover Cops* – but *Metal Slug* doesn't seem to feature anything like that.

TO: Maybe not in the game, but, during development, Akio-san used to sit right behind me, and, in his spare time, he'd be scrawling all kind of things in my notebook.

SH: He may not have slipped anything into the game, but he really loved fooling around. When we were developing the NEOGEO CD version, which was right after we finished the arcade game, we wanted to add something extra in the form of the gallery mode. So, there were these illustrations of the bosses done in a Tamiya box illustration style, and one of them was the first boss as it would have been as a plane.

Akio-san called the artist over and said [deep Akio-san voice] "It's missing something." "What's that, Akio?" "A gag, you need a sight gag in there. Look at this." And Akio pointed to the first boss in the game where there are those ropes up near the propeller with washing drying on them: "This. This is what it needs." And I think that summed Akio-san up; he loved slipping these small visual jokes in to entertain himself and whoever spotted them. When he was on a roll, he'd go further and further off track.

Another example is the gallery at the end of *Metal Slug 1*; there's a picture of Marco, looking like a devil and breathing fire. So, I asked Akio-san where it was going to be used. At the time, there was a scene in *Tekken* where the main character turns into a devil, and Akio-san saw that and decided he quite liked it.

SH: So, when I saw this, I got a little carried away myself with Combat School. Finishing all the missions was pretty difficult, and there weren't any directions as to what happened if the player did, so I changed the player's colour to make it look like a devil and showed Akio, expecting to get in trouble, but all he said was, "Change the colour to this," so I did.

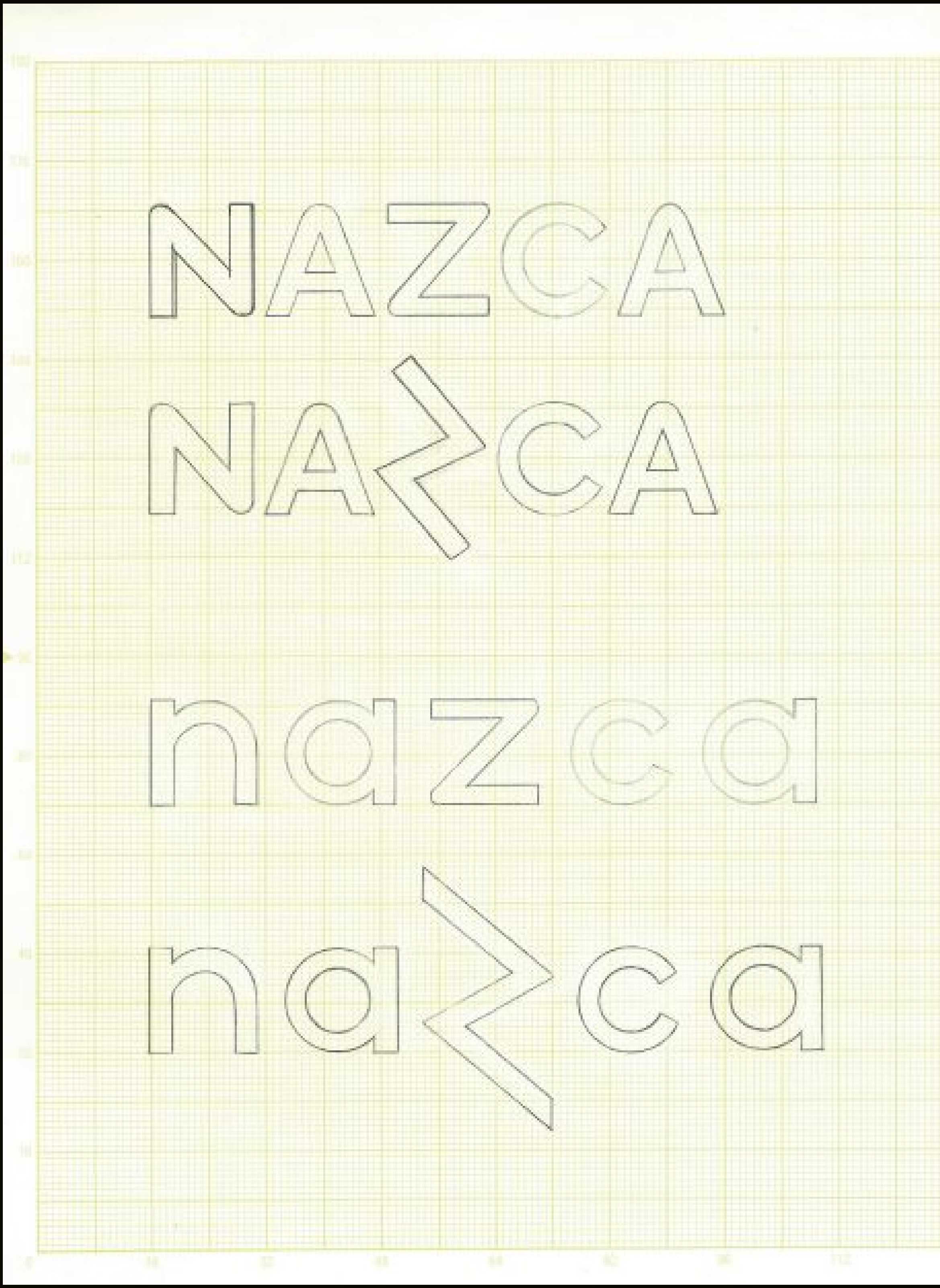
BB: So, the Super Devil mode was inspired in part by *Tekken*? Wow!

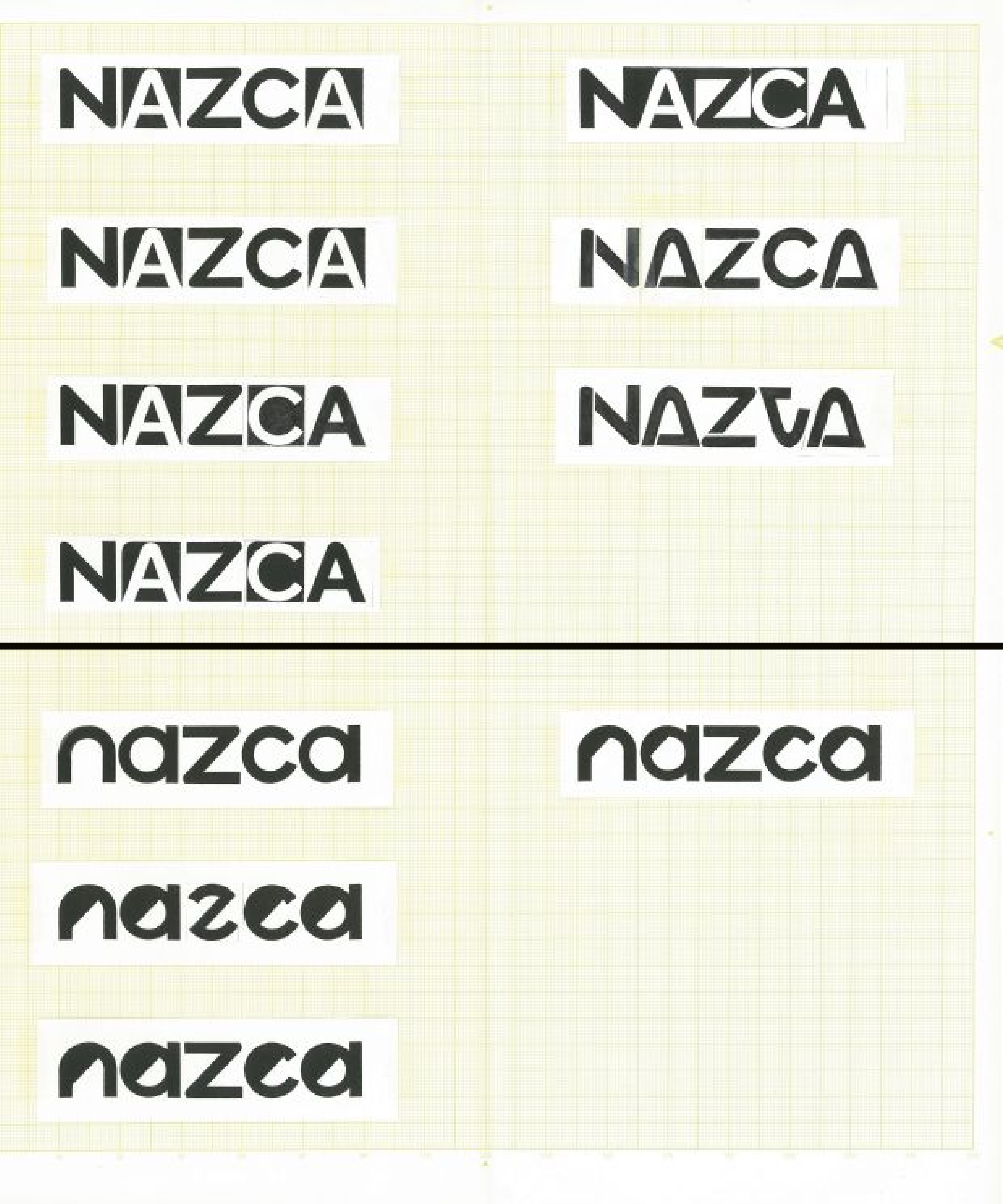
SH: There were some female characters who don't appear in the game and one that looks like [anime legend Leiji Matsumoto's] Queen Emeraldas, and that went in the gallery too!

BB: We really appreciate you both chatting to us about your time working on Metal Slug.

In this special section, we have been very lucky to be able to showcase some fascinating original *Metal Slug* design documents. These all refer to 'Metal Slug Zero', in which you played solely as the Super Vehicle 001, before Marco and Tarma were introduced. A huge thanks to Takeshi Okui for sharing these with us for the book. Enjoy.

A series of never-seen-before Nazca logo development designs, hand-drawn in pencil onto graph paper by Takeshi Okui.

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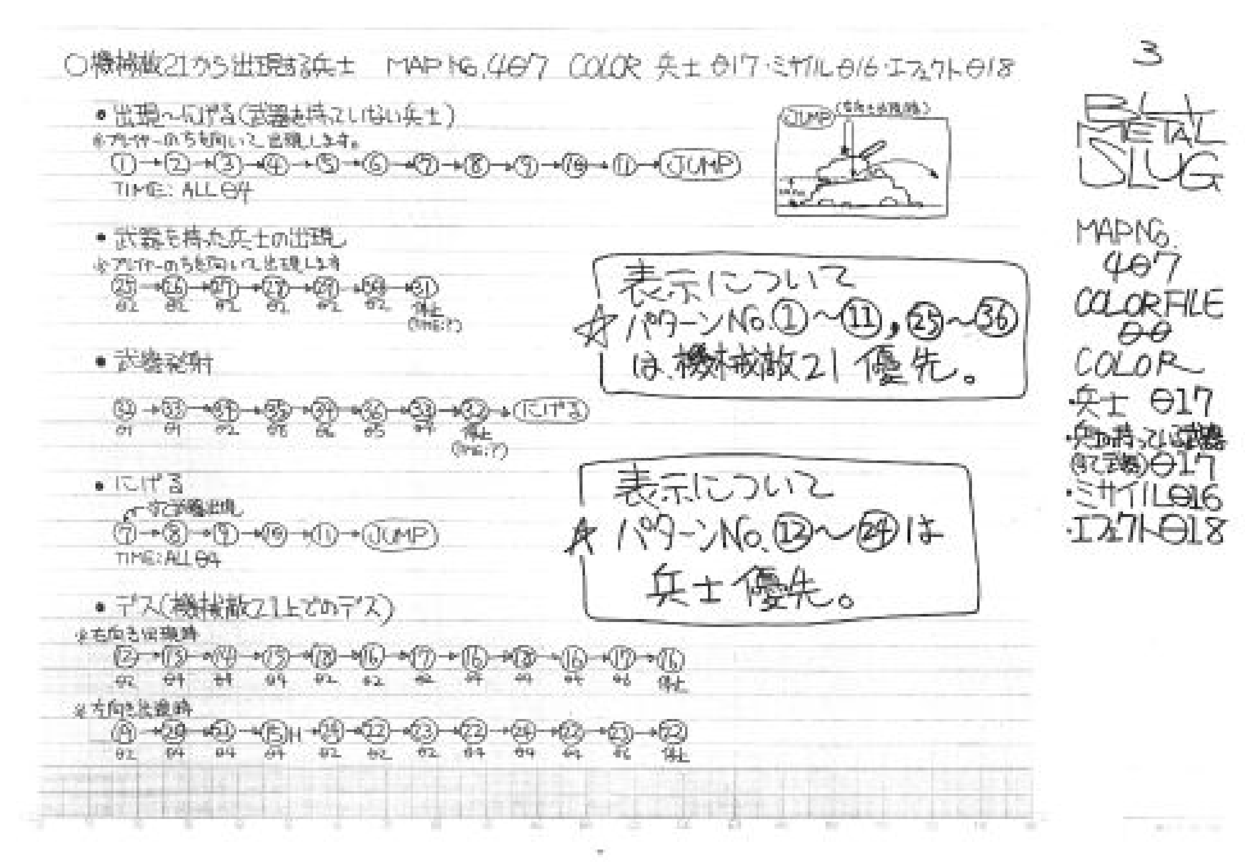
Further Nazca logo development designs by Takeshi Okui. Note that the final chosen logo design was much simpler than these ideas, which include some interesting font choices and custom letterforms.



○機械敵21から出現する兵士　MAP No.407　COLOR 兵士 017・ミサイル 016・エフェクト 018

3

- 出現～にげる（武器を持っていない兵士）
  ※プレイヤーの方を向いて出現します。
  ①→②→③→④→⑤→⑥→⑦→⑧→⑨→⑩→⑪→JUMP
  TIME: ALL 04
- 武器を持った兵士の出現
  ※プレイヤーの方を向いて出現します
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表示について
☆ パターンNo.①～⑪，㉕～㊱は機械敵21優先。

表示について
☆ パターンNo.⑫～㉔は兵士優先。

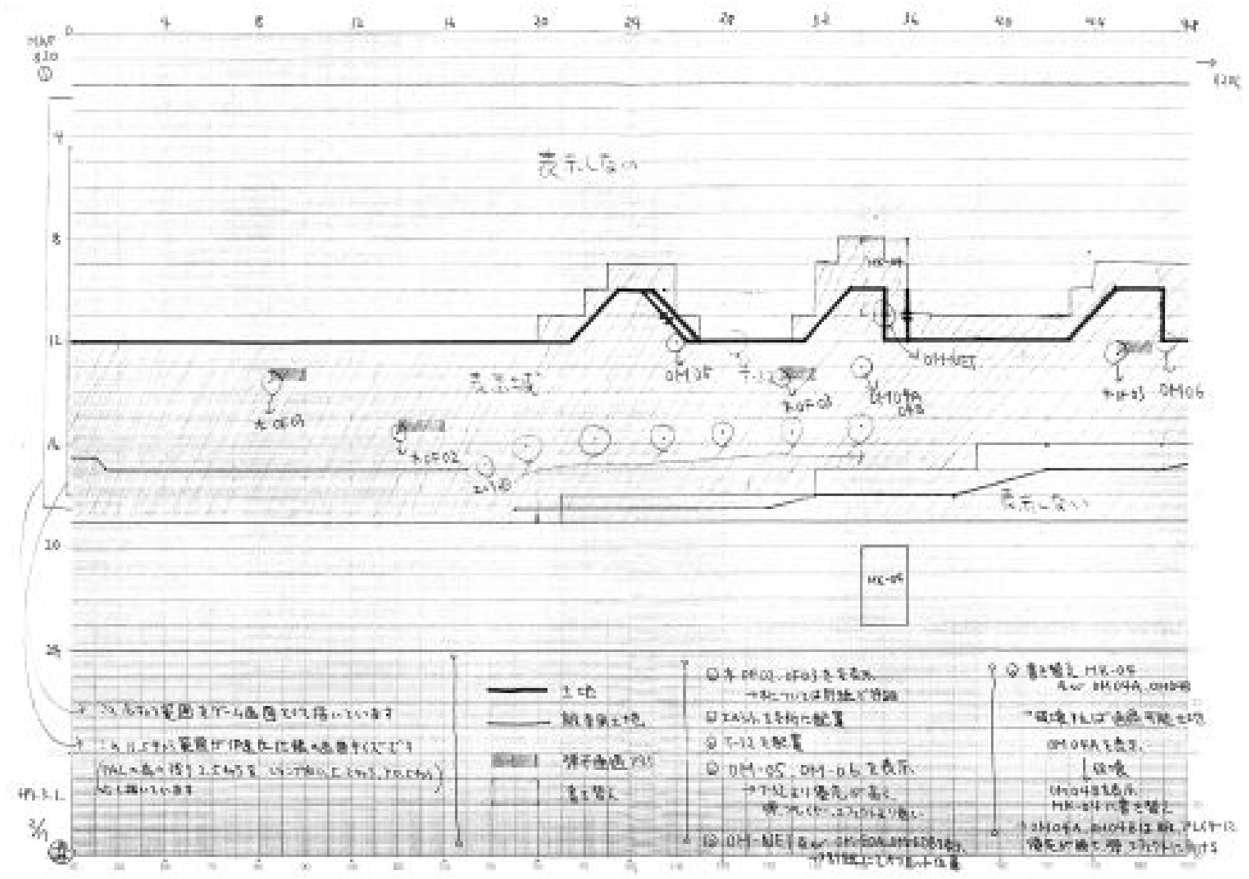
METAL SLUG

MAP No. 407

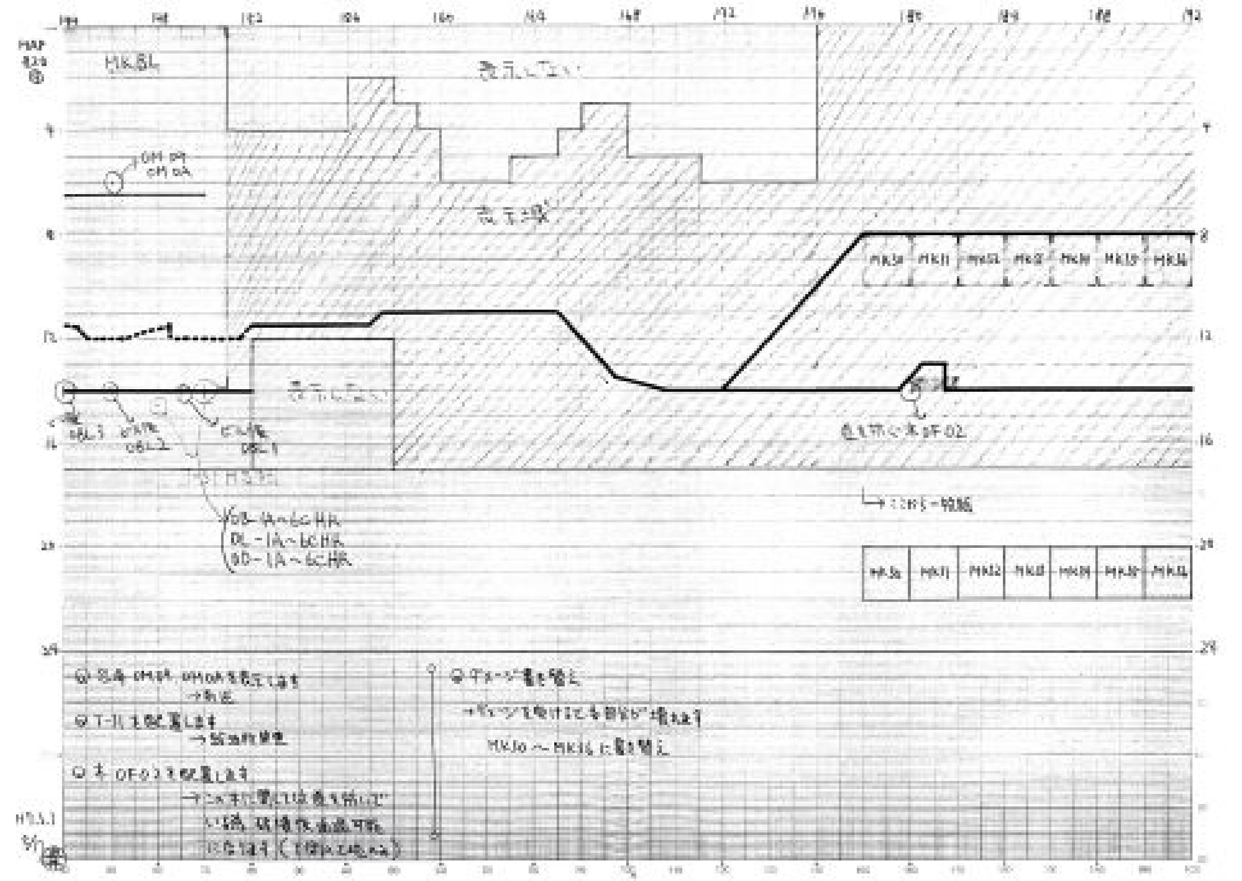
COLOR FILE 00

COLOR
- 兵士 017
- 兵が持っている武器（捨てる武器）017
- ミサイル 016
- エフェクト 018

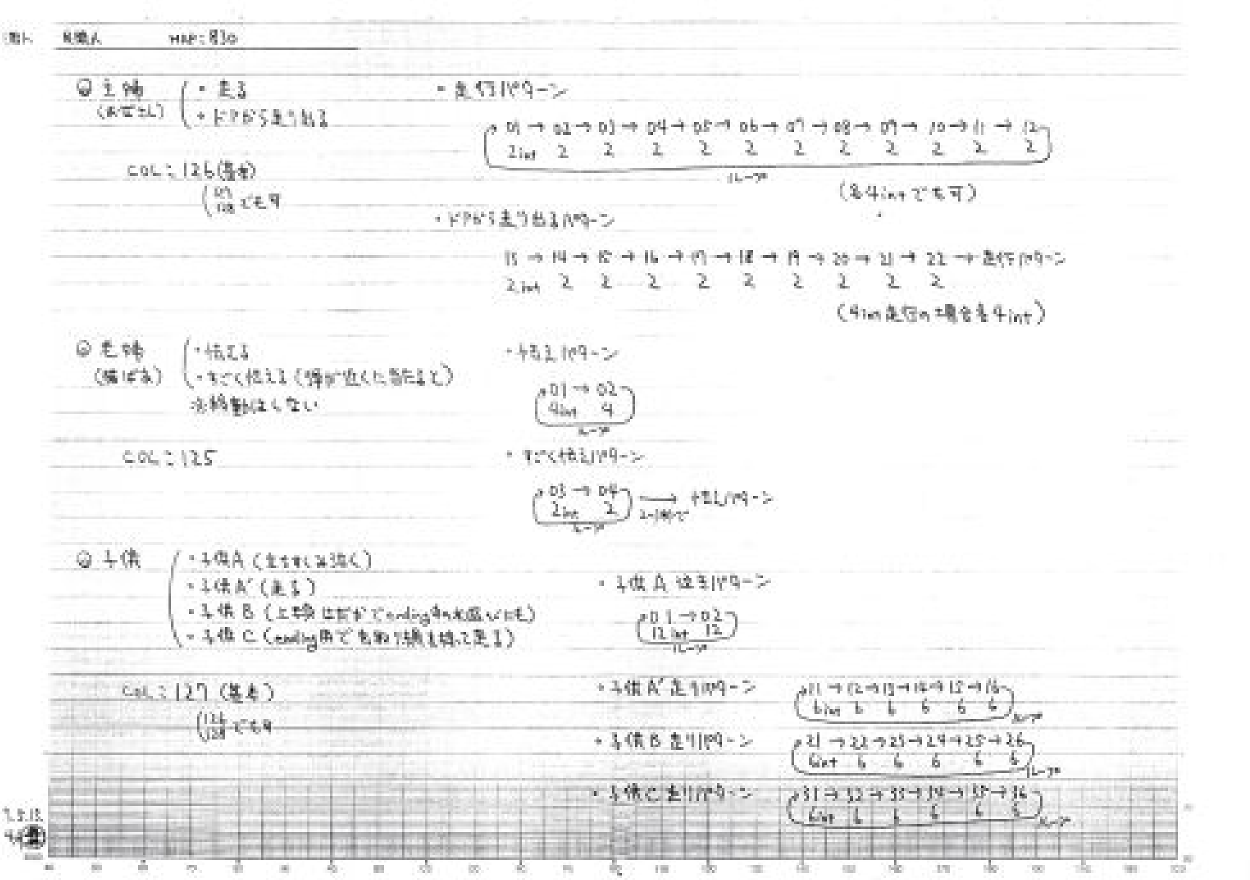
Technical programmer instructions, detailing how to animate a soldier appearing from a destroyed SV-001. They include patterns for running away, appearing with a weapon, firing a weapon, dropping the weapon, and running or appearing then dying.



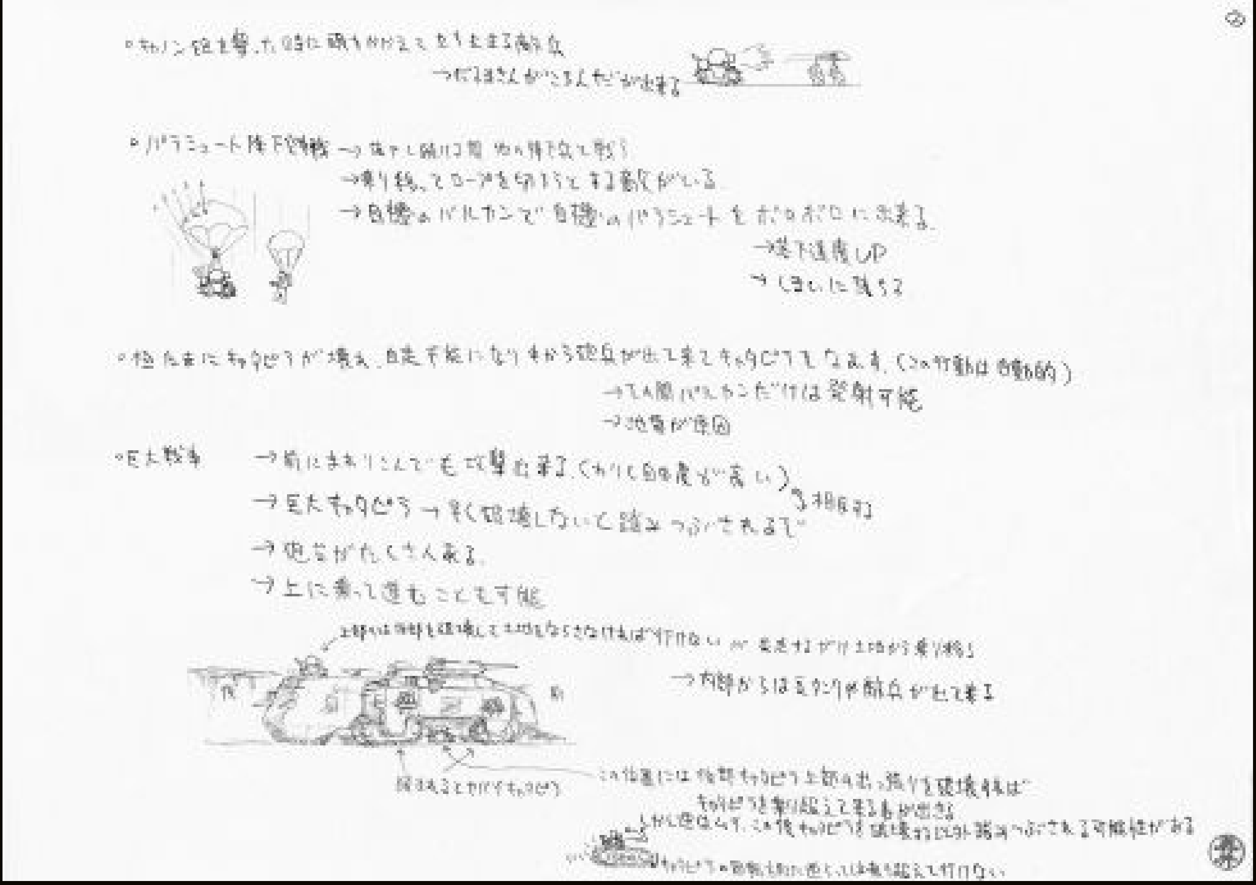
This in-depth level design would be given to the progarmmer to implement. It details what to display through the level and where it appears, whilst documenting which parts of the scenery are enemy or player terrain.



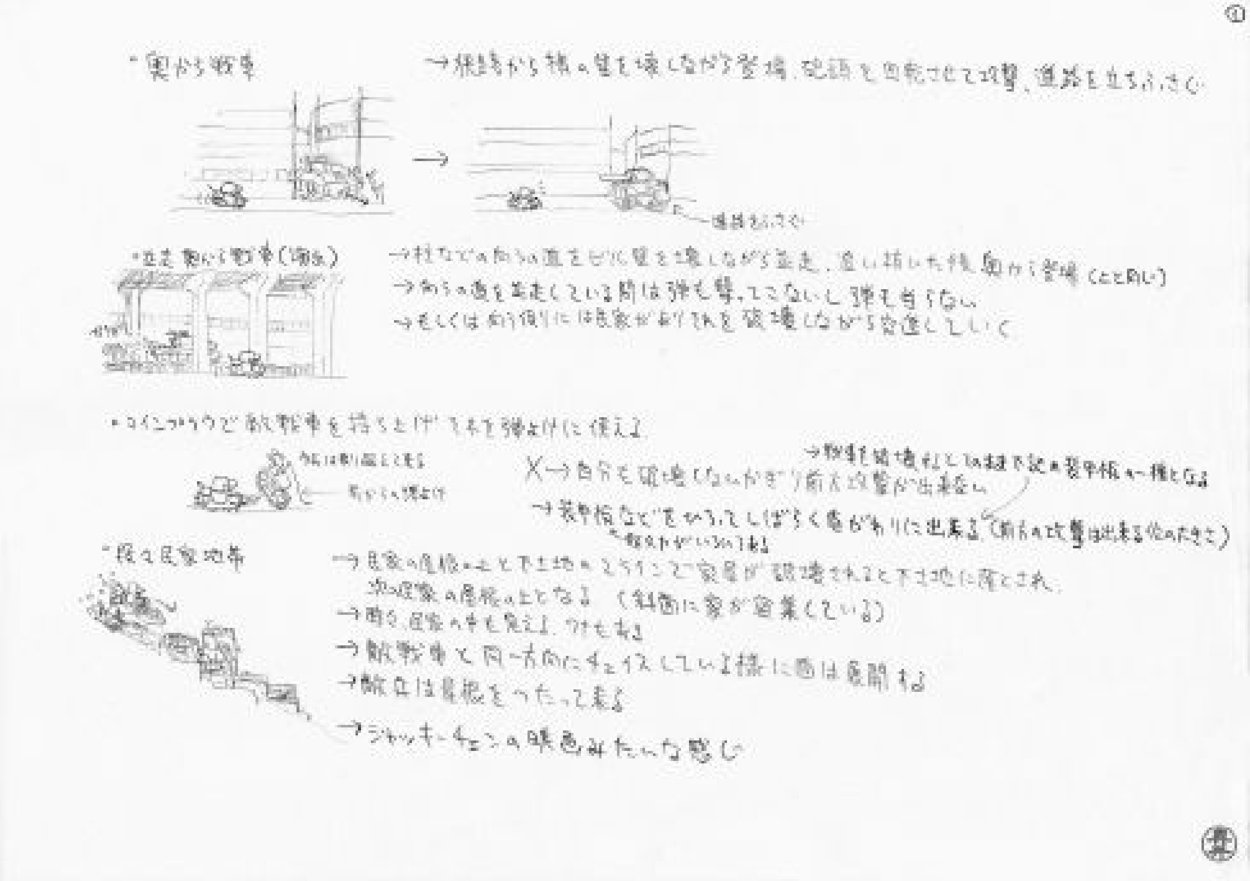
More detailed level designs that would be given to the programmers – this example shows several pieces of destructible scenery and what should be shown before and after the damage.



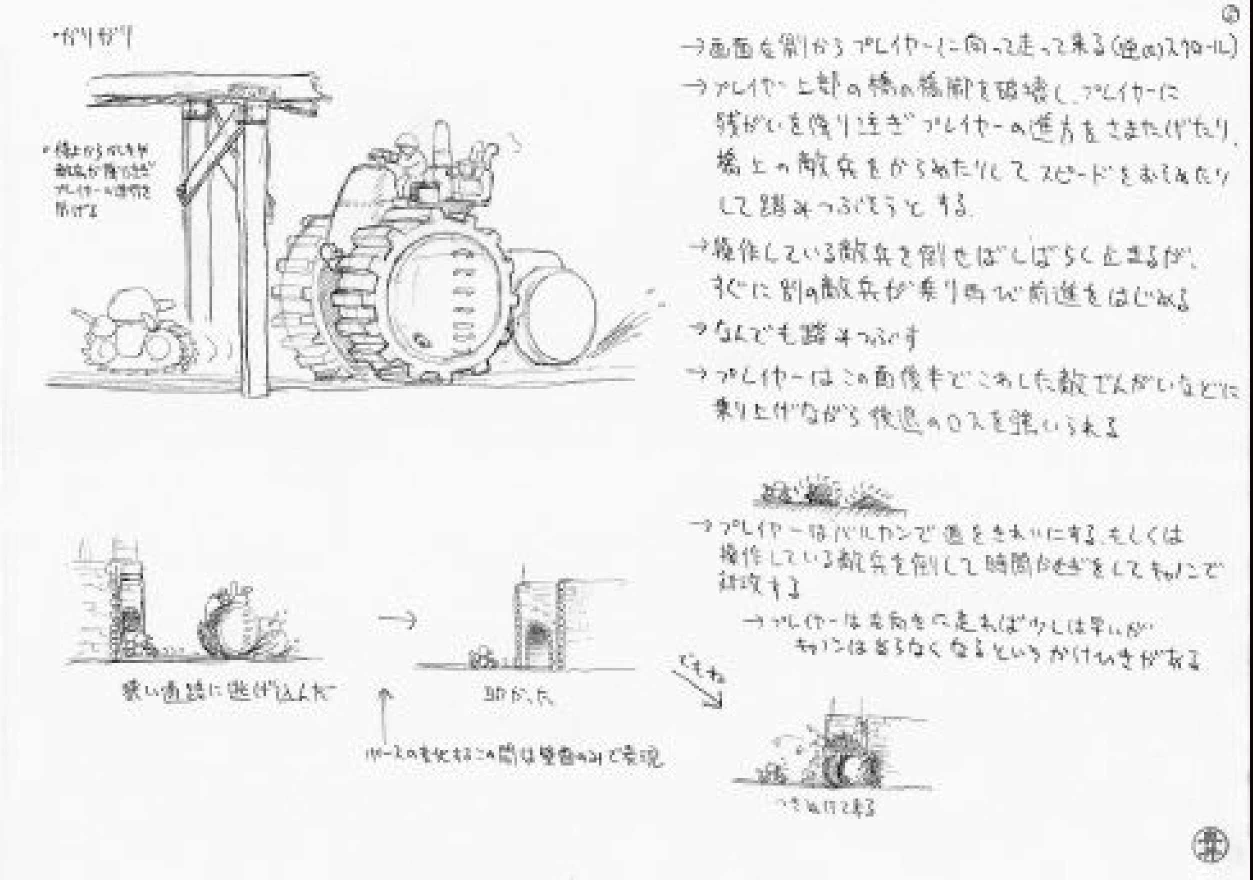
Instructions for how the backgrounds in Mission 1 should be laid out, where graphics are in memory, colour palettes to use and where to switch them, the different objects and their placements, and how many layers of scrolling should be used.



Game design concepts, such as the caterpillar tracks on the SV-001 occasionally breaking, meaning the tank stops moving, leading to the gunner jumping out and repairing it. Also, parachuting tanks – some of which have unused sprites in the game memory.



Concept for a scene where you're chasing an enemy tank across sloped civilian rooftops, which references the opening scenes of *Police Story 2,* starring Jackie Chan. Text says "the tank can drop down when the roof is destroyed and drive onto the next house's roof."


・ガリガリ
・橋上から敵兵が降りてきプレイヤーの進行を防げる
狭い通路に逃げ込んだ
助かった
ベースの変化するこの間は背面のみで表現
くずれ
つきぬけて来る

→画面を削りからプレイヤーに向って走って来る（逆のスクロール）

→プレイヤー上部の橋の橋脚を破壊しプレイヤーに残がいを降り注ぎプレイヤーの進方をさまたげたり、橋上の敵兵をからめたりしてスピードをおとしたりして踏みつぶそうとする。

→操作している敵兵を倒せばしばらく止まるが、すぐに別の敵兵が乗り込んで前進をはじめる

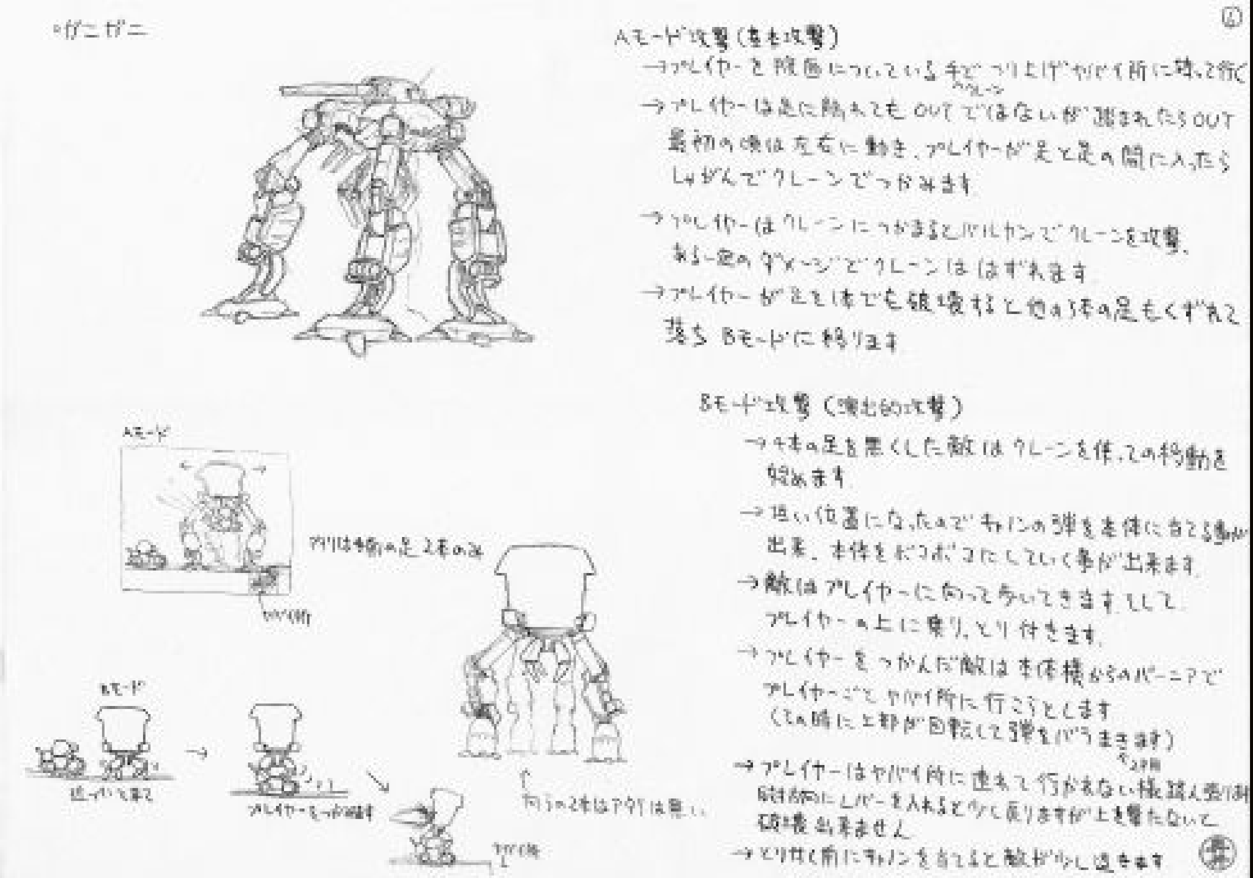
→なんでも踏みつぶす

→プレイヤーはこの画像手前でこわした敵ざんがいなどに乗り上げながら後退のロスを強いられる

→プレイヤーはバルカンで道をきれいにする、もしくは操作している敵兵を倒して時間かせぎをしてキャノンで反攻する

→プレイヤーは左向きに走れば少しは楽いがキャノンは当らなくなるというかけひきがある

Concept for a large ‘steamroller’ enemy that never made the final game. It would chase you in a scrolling scene, and would slow the player down by knocking down bridge supports and dropping rubble to obstruct your path.


・ガニガニ
Aモード
アタリは手前の足2本のみ
ヤバイ所
Bモード
近づいて来て
プレイヤーをつかみます
向うの2本はアタリは無い
ヤバイ所

Aモード攻撃（基本攻撃）

→プレイヤーを胴体についている手で（クレーン）つりあげヤバイ所に持って行く

→プレイヤーは足に触れてもOUTではないが踏まれたらOUT 最初の時は左右に動き、プレイヤーが足と足の間に入ったらしゃがんでクレーンでつかみます

→プレイヤーはクレーンにつかまるとバルカンでクレーンを攻撃。ある一定のダメージでクレーンははずれます

→プレイヤーが足を1本でも破壊すると他の3本の足もくずれて落ち Bモードに移ります

Bモード攻撃（演出的攻撃）

→4本の足を無くした敵はクレーンを使っての移動を始めます

→低い位置になったのでキャノンの弾を本体に当てる事が出来、本体をボコボコにしていく事が出来ます

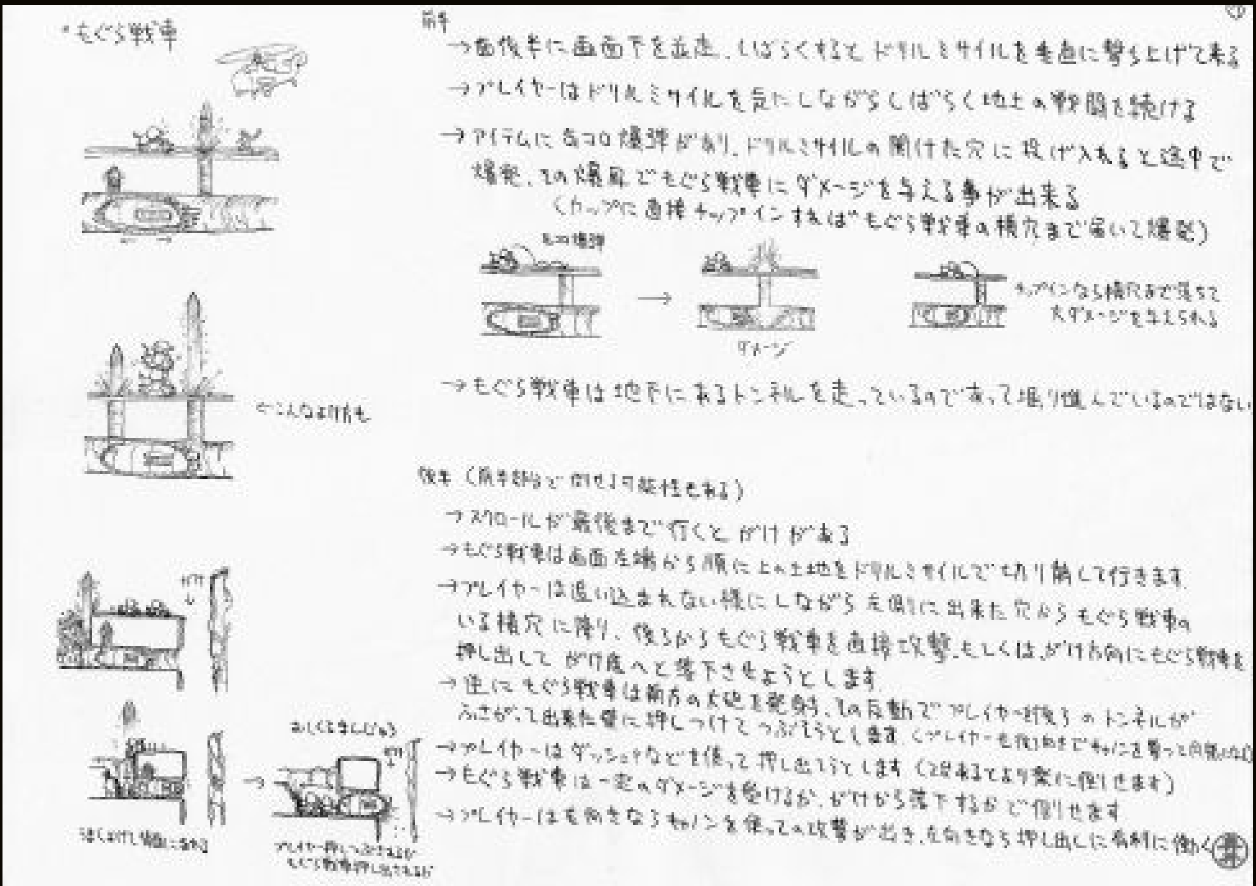
→敵はプレイヤーに向って歩いてきますそしてプレイヤーの上に乗り、とり付きます

→プレイヤーをつかんだ敵は本体横からのバーニアでプレイヤーごとヤバイ所に行こうとします（その時に上部が回転して弾をバラまきます）

→プレイヤーはヤバイ所に連れて行かれない様（〜2秒間）噴射部にレバーを入れると少し戻りますが上を撃たないと破壊出来ません

→とり付く前にキャノンを当てると敵が少し退きます

Game design ideas for a huge ‘quadrupedal tank’ enemy which would pick the player up with its crane and drop them in a hole or off a cliff. Its mechanical legs would also be able to crush you.



・もぐら戦車

前半

→面後半に画面下を並走、しばらくするとドリルミサイルを垂直に撃ち上げて来る

→プレイヤーはドリルミサイルを気にしながらしばらく地上の戦闘を続ける

→アイテムにネコロ爆弾があり、ドリルミサイルの開けた穴に投げ入れると途中で爆発、その爆風でもぐら戦車にダメージを与える事が出来る
（カップに直接チップインすればもぐら戦車の横穴まで届いて爆発）

ネコロ爆弾
ダメージ
チップインなら横穴まで落ちて大ダメージを与えられる
こんな地形も
がけ

→もぐら戦車は地下にあるトンネルを走っているのであって掘り進んでいるのではない

後半（前半部分と同じ可能性もある）

→スクロールが最後まで行くとがけがある

→もぐら戦車は画面左端から順に上の土地をドリルミサイルで切り崩して行きます

→プレイヤーは追い込まれない様にしながら左側に出来た穴からもぐら戦車のいる横穴に降り、後ろからもぐら戦車を直接攻撃、もしくはがけ方向にもぐら戦車を押し出してがけ底へと落下させようとします

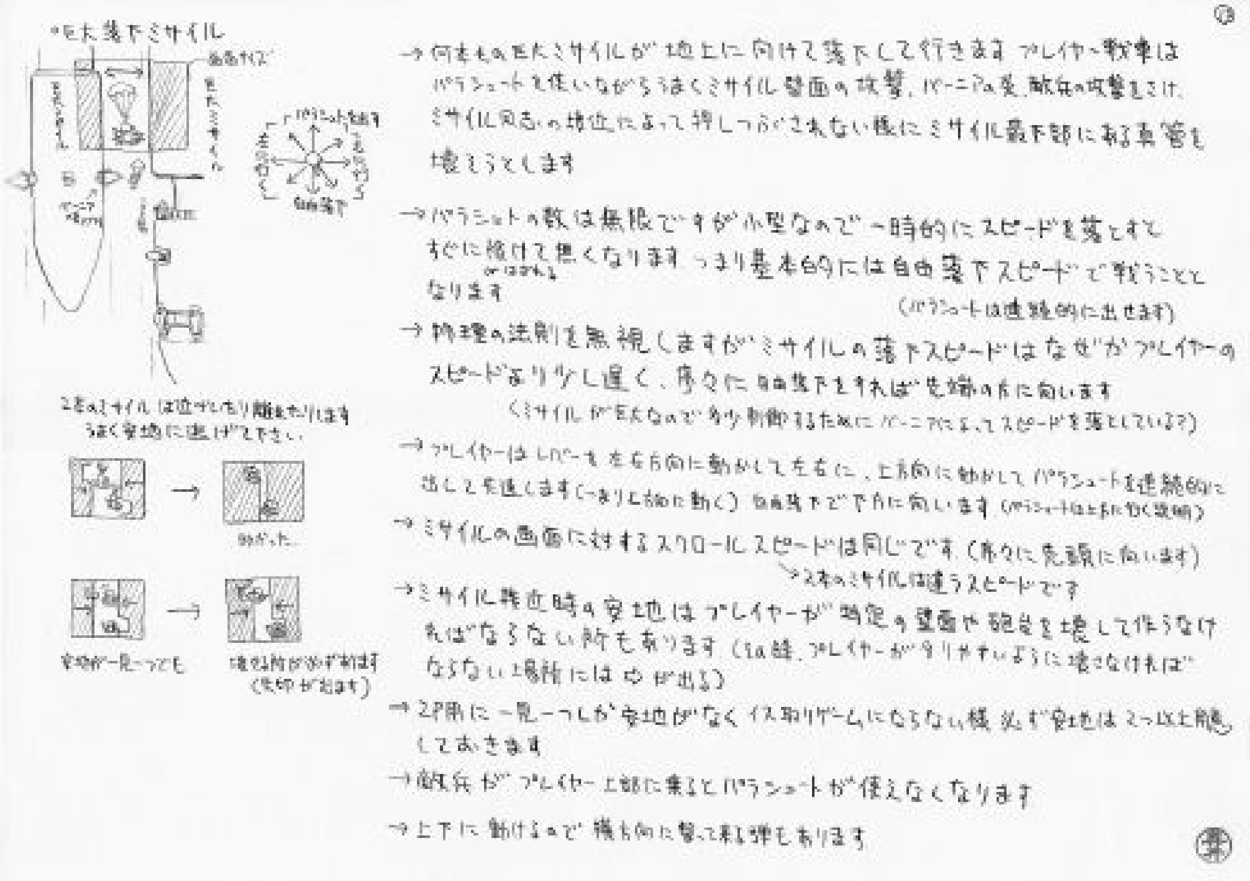
→逆にもぐら戦車は前方の大地を発射、その反動でプレイヤー背後のトンネルがふさがって出来た壁に押しつけてつぶそうとします（プレイヤーを潰すまで[illegible]）

→プレイヤーはダッシュなどを使って押し出そうとします（2段あるので割と楽に倒せます）

→もぐら戦車は一定のダメージを受けるか、がけから落下するかで倒せます

→プレイヤーは右向きならキャノンを使っての攻撃ができ、左向きなら押し出しに有利に働く

Game design idea for a 'mole tank' enemy that would drill underground and fire missiles up through the ground towards you. It can be defeated by carefully firing missiles back down the holes underground.



・巨大落下ミサイル

画面サイズ
巨大ミサイル
自由落下

2本のミサイルは近づいたり離れたりします
うまく安地に逃げて下さい

助かった
安地が一見一つでも

→何本もの巨大ミサイルが地上に向けて落下して行きます プレイヤー戦車はパラシュートを使いながらうまくミサイル壁面の攻撃、バーニアの炎、敵兵の攻撃をさけ、ミサイル同志の接近によって押しつぶされない様にミサイル最下部にある信管を壊そうとします

→パラシュートの数は無限ですが小型なので一時的にスピードを落とすとすぐに抜けて無くなります つまり基本的には自由落下スピードで戦うこととなります
（パラシュートは連続的に出せます）

→物理の法則を無視しますがミサイルの落下スピードはなぜかプレイヤーのスピードより少し遅く、序々に自由落下をすれば先端の方に向います
（ミサイルが巨大なので多少制御するためにバーニアによってスピードを落としている？）

→プレイヤーはレバーを左右方向に動かして左右に、上方向に動かしてパラシュートを連続的に出して失速します（つまり上側に動く）自由落下で下方に向います（パラシュートは上方に動く説明）

→ミサイルの画面に対するスクロールスピードは同じです（序々に先頭に向います）
→2本のミサイルは違うスピードです

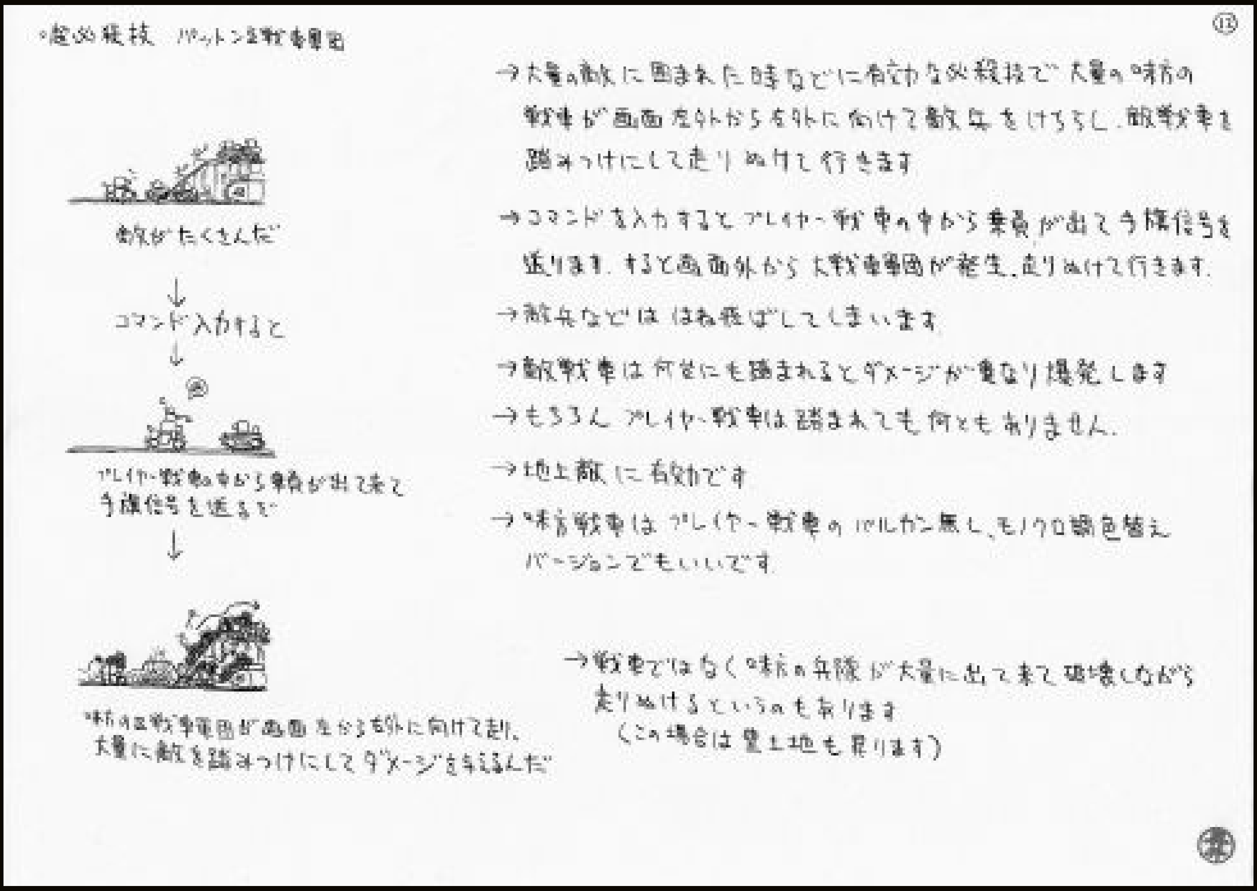
→ミサイル接近時の安地はプレイヤーが特定の壁面や砲台を壊して作らなければならない所もあります（その時、プレイヤーが分りやすいように壊さなければならない場所には ⇨ が出る）

→2P用に一見一つしか安地がなくイス取りゲームにならない様 必ず安地は2つ以上用意しておきます

→敵兵がプレイヤー上部に来るとパラシュートが使えなくなります

→上下に動けるので横方向に撃って来る弾もあります

An action-packed concept for a scrolling level where you're falling down, being slowed by your parachute. You must avoid the huge missiles (that fill the entire screen) by finding the safe spots to take cover.



・超必殺技　パットン豆戦車軍団

⑫

→大量の敵に囲まれた時などに有効な必殺技で大量の味方の戦車が画面左外から右外に向けて敵兵をけちらし、敵戦車を踏みつけにして走りぬけて行きます

→コマンドを入力するとプレイヤー戦車の中から乗員が出て手旗信号を送ります。すると画面外から大戦車軍団が発生、走りぬけて行きます。

→敵兵などははね飛ばしてしまいます

→敵戦車は何台にも踏まれるとダメージが重なり爆発します

→もちろんプレイヤー戦車は踏まれても何ともありません。

→地上敵に有効です

→味方戦車はプレイヤー戦車のバルカン無し、モノクロ調色替えバージョンでもいいです

敵がたくさんだ

↓

コマンド入力すると

↓

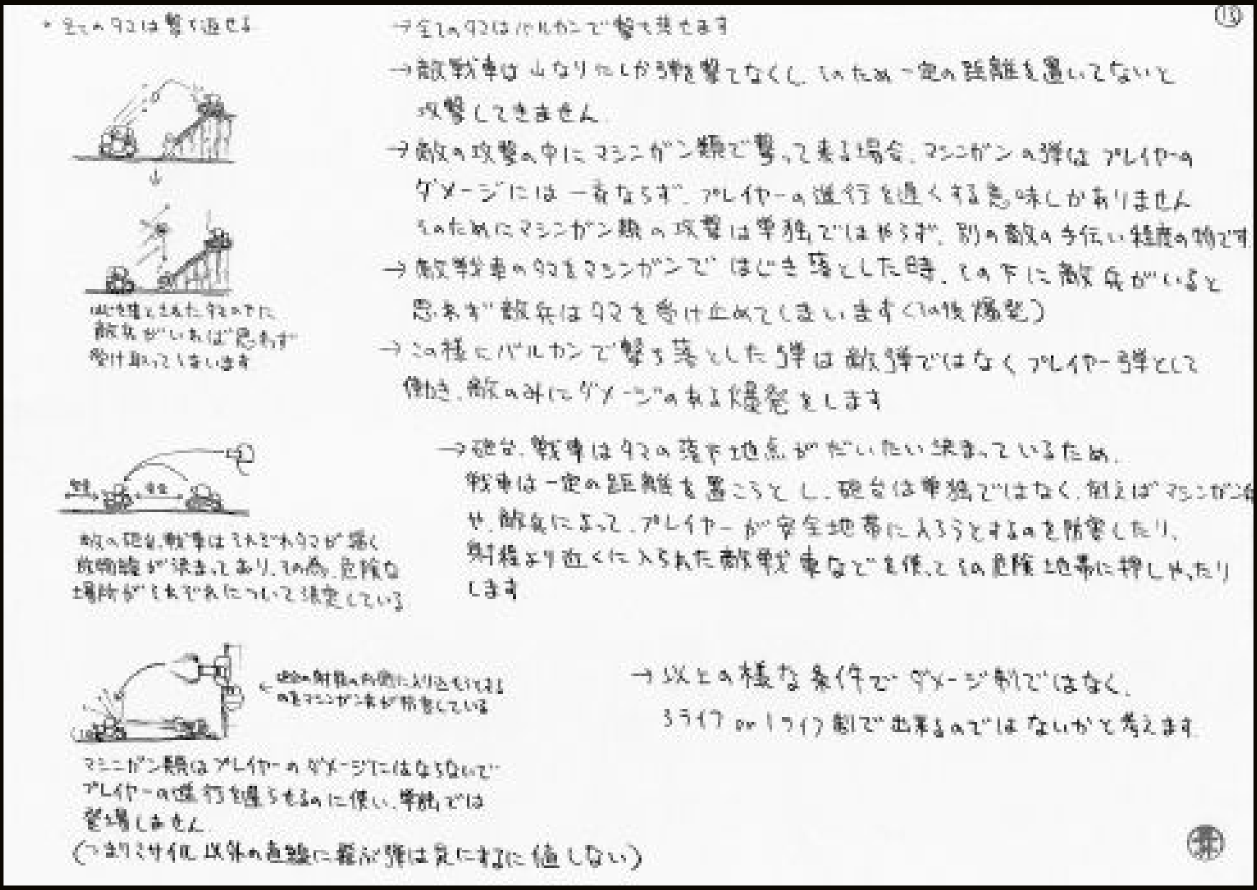
プレイヤー戦車の中から乗員が出て来て手旗信号を送るぞ

↓

味方の豆戦車軍団が画面左から右外に向けて走り、大量に敵を踏みつけにしてダメージを与えるんだ

→戦車ではなく味方の兵隊が大量に出て来て破壊しながら走りぬけるというのもあります
（この場合は[illegible]も[illegible]ります）

Concept idea for a special move called ‘The Patton Mini-Tank Brigade’. If the player finds thelselves surrounded, they can enter a special command to call on a load of allied mini-tanks that come and help you.



・全てのタマは撃ち落せる

⑬

→全てのタマはバルカンで撃ち落せます

→敵戦車は山なりにしか弾を撃てなくし、そのため一定の距離を置いてないと攻撃してきません。

→敵の攻撃の中にマシンガン類で撃って来る場合、マシンガンの弾はプレイヤーのダメージには一切ならず、プレイヤーの進行を遅くする意味しかありません
そのためにマシンガン類の攻撃は単独ではおらず、別の敵の手伝い程度の物です。

→敵戦車のタマをマシンガンではじき落とした時、その下に敵兵がいると思わず敵兵はタマを受け止めてしまいます（その後爆発）

→この様にバルカンで撃ち落とした弾は敵弾ではなくプレイヤー弾として働き、敵のみにダメージのある爆発をします

山なりに撃ち落とされたタマの下に敵兵がいれば思わず受け取ってしまいます

→砲台、戦車はタマの落下地点がだいたい決まっているため、戦車は一定の距離を置こうとし、砲台は単独ではなく、例えばマシンガン
や、敵兵によって、プレイヤーが安全地帯に入ろうとするのを防害したり、射程より近くに入られた敵戦車などを使ってその危険地帯に押しやったりします

敵の砲台、戦車はそれぞれタマが描く放物線が決まっており、その為、危険な場所がそれぞれについて決定している

← 砲台の射程の内側に入り込もうとするのをマシンガン兵が防害している

→以上の様な条件でダメージ制ではなく、
3ライフ or 1ライフ制で出来るのではないかと考えます。

マシンガン類はプレイヤーのダメージにはならないでプレイヤーの進行を遅らせるのに使い、単独では登場しません。
（つまりミサイル以外の直線に飛ぶ弾は気にするに値しない）

Concept ideas for how the various enemy fire works. Text describes how shells from cannons and tanks will always land in approximately the same distance from where they’re fired; enemy tanks will try to distance themselves before firing their cannons.

Andoh Kenji

Known for being shy and someone who rarely speaks with the media, Andoh Kenji (better known as 'Andy' in the credits of the early arcade games he's worked on) graciously made an exception for this book. An Irem veteran and programming wizard whose skills were forged in the arcade games of Irem's past, Andy has the sorts of insights only a genuine video game veteran could offer. Conversationally, he is as efficient in his answers as he is in his programming, not given to hyperbole, and reluctant to evaluate his own legacy, even though he's well within his rights to do so. Andy would rather leave that up to other people than offer his opinion on what his greatest technical achievement might have been. Still, he's not a man without humour, and is generous in showering praise on his former coworkers. Let it not go unnoticed that this is the man that made all of Metal Slug's magic happen on-screen, so, without further ado...

BB: Thank you for meeting with us. Could you start by telling us your title and responsibilities at SNK?

AK: I worked on the program in the hardware that made the sprites for the NEOGEO. The Metal Slug team used that program to make the game.

BB: Does this mean you were the programmer for that NEOGEO hardware, and you were also working directly on *Metal Slug*?

AK: I didn't work on the NEOGEO hardware. At the time, we were working at Nazca as SNK's third-party developer and developing content for the NEOGEO. The project started as an attempt to make new content for the NEOGEO.

BB: OK. So you made the engine for *Metal Slug* as part of Nazca?

AK: Yes, that is correct.

BB: Before beginning development on *Metal Slug*, you were part of the team that came over from Irem to Nazca?

AK: Yes, I was the lead programmer of the team that came from Irem.

BB: Which games did you work on at Irem before forming Nazca? Some of the games that composer Takushi Hiyamuta and game planner Kazuma Kujo worked on were *GunForce II*, *Undercover Cops* and In the Hunt. Did you work on any of these, as well?

AK: I didn't work on the titles you just mentioned. I joined Irem the same year that [game planner] Meeher and Kujo-san joined. *In the Hunt* was Kujo-san's title, and Meeher worked on *Undercover Cops*. When they were making plans to go make Nazca, they invited me to join them. I worked on titles like a beat 'em up action game with a baseball theme called *Ninja Baseball Bat Man*, and I was the lead programmer for *Armed Police Unit Gallop*, a side-scrolling shoot 'em up arcade game.

BB: Was Irem the first company you worked for?

AK: Yes, that's correct. Right out of college.

BB: Because of *Armed Police Unit Gallop*, you obviously had experience working on 2D side-scrolling games, with sprite effects and big vehicles and enemies, all before working on *Metal Slug*.

AK: Yes, I was experienced in trying to figure out how to optimise for lots of sprites, enemies and visual effects.

BB: What game would you say prepared you the most for what you had to accomplish with *Metal Slug*?

AK: I don't think there was any particular game that prepared me for the making of *Metal Slug*.

BB: When you were at Irem, you were working primarily on Irem's proprietary arcade hardware. What were some of the key differences working on Irem's hardware compared with programming for the NEOGEO?

AK: It was much harder to program for the NEOGEO because of the limitations of the hardware compared with the arcades. The concept behind NEOGEO was to simulate the arcade's bigger system but, in trying to keep manufacturing costs down, the framework of the hardware was not optimal.

BB: What do you mean by a "bigger system"?

AK: The CPU performance was smaller on the NEOGEO. The hardware space allocated to sprites was not made for a lot of speed, so we had to allocate some of that to the CPU.

BB: Prior to Nazca joining the company, most of SNK's games were mainly fighting games, golf games and puzzle games. *Metal Slug* was the first game of its type at SNK. Irem generally made more shooters like *Metal Slug*. When SNK was making the NEOGEO hardware, were they designing it to satisfy their current style of games, rather than the processing-heavy, sprite-based games of Irem?

AK: I think the NEOGEO was designed to accommodate a variety of games, including shooters. However, the performance of the hardware could not easily keep up with the demands of what our team wanted to do, which is that there were a lot of animations and sprites, explosions and fast movements on-screen.

BB: Was *Armed Police Unit Gallop* the only *R-Type*-style game that you worked on?

AK: You mean side-scrolling shooters similar to *R-Type*? I don't recall working on any other game like that, besides *Armed Police Unit Gallop*.

> *"The planners and artists explained to me how many sprites they wanted for the foreground and background, and then to redistribute the sprites when something explodes."*

BB: How did you make all the things going on in *Metal Slug* work? You have all these big machines and humanoid enemies running around blowing everything up, plus the player character. There's so much going on. How did you manage it?

AK: That's a very hard question to answer because I thought that was the norm. All I can say is that I just did.

BB: So, when you heard about the game concept and what the planners wanted you to make, it didn't faze you or surprise you? Were you ever stumped or overwhelmed by the demands?

AK: Oh, no. Every project is a challenge and I feel that way all the time. The planners and artists explained to me how many sprites they wanted for the foreground and background, and then to redistribute the sprites when something explodes. It all sounded like illusion magic when they first explained it to me.

BB: Were there any hardware tricks that you had to resort to, to achieve something that the NEOGEO wasn't necessarily designed to do?

AK: The system was very versatile, so not really. For example, the sprites for the foreground and background weren't separate and the same number was displayed for both, so we didn't have to dynamically override the program.

BB: So, take a console like the SEGA Saturn, which was designed to support layers of parallax scrolling: this gave the player a sense of depth in 2D. Are you saying that the NEOGEO was not designed to support this type of effect in the hardware?

AK: The hardware didn't separate the foreground from the background. So the background had the same visual restrictions as the foreground, which was a disadvantage. However, the advantage was that we were able to be spontaneous, and manually distribute resources during gameplay, so we were able to create sprites for the background.

BB: Still fuzzy on how this was an advantage…

AK: The background is actually just 20 sprites lined up side by side. The restriction at the time was that one sprite was 16 pixels wide. And the screen was 320 pixels wide, so we lined up 20 sprites side by side across the screen. The remaining sprite allocations were used for buildings and other objects on the screen. Then we layered the sprites for the foreground on top of those, because it was back in the days where we were restricted to only 96 sprites across the background.

I don't think SNK had revealed to the public these hardware specs, so this information might only be known by the developers, and not public knowledge. But there was a restriction to the number of sprites that could be allocated to the background and, if there were a lot of things going on on-screen, we had to get creative to work around the hardware restrictions.

BB: From what you're saying, it doesn't sound like it was necessarily an advantage, but that you were able to exploit the hardware to make it work.

AK: Well, when I was thinking about how to display the amount of sprites that were required, it was one of the ways that I was able to devise of how to make it possible.

BB: Was there anything that the game planners requested that you weren't able to do, or were you able to make the game that the artists and designers envisioned?

AK: I don't think we were able to make the game exactly the way they wanted. There were limitations to the hardware that just made some things impossible to do. I don't remember there being anything that was removed completely from the planning document, but there were many things where they had to compromise due to hardware specs.

BB: Do you remember anything that was compromised?

AK: I can't remember specifically. In general, I remember having many discussions where I would tell them we couldn't do it exactly the way they wanted but saying, "But, we can do it like this."

BB: Even though *Metal Slug* was similar in format to games you made in the past, would you say this was the first time you had achieved something on this scale?

AK: *Metal Slug* was an extension of what I had made in the past, so I don't feel like it was particularly revolutionary or that I had achieved something extraordinary. At least I don't feel that way at this moment. However, because it was new hardware, we were able to display a lot more graphics, so that really made a difference in the game.

People always talk about putting cool things in games, but the Metal Slug team actually did it. One example is the artists who drew all of the various ways to die. I remember wondering if it was necessary to have so many varieties in death animations, but we carefully programmed each sequence into the game.

BB: At the time of the first *Metal Slug*, it's difficult to think of another game producing so much 2D animation on-screen. Do you remember any contemporaries that were achieving similar results?

AK: Not on the NEOGEO.

BB: Speaking with other members of the team, they mention how lead artist Akio's vision for the game and artistic skills had a large impact on – not only *Metal Slug* – but a lot of the games leading up to the formation of Nazca. What it was like working with Akio-san on this game?

AK: I think that *Metal Slug* was only possible because of his vision and direction.

BB: Do you remember any ideas that he brought to the table that a lesser artist might not have thought of or would have totally ignored?

AK: I recall more instances where I struggled because of his ideas than where I was awe-inspired. [Laughs]

BB: It's easy to sit back and admire the finished product now, but, for you, it must have been hell. For example, how much trouble was it to have to change the main character from a tank to an animated human character, after half the game was already finished?

AK: I don't recall it being a huge issue on the programming side. There was definitely more work that had to be done in a short amount of time because we needed to add the soldier character and make necessary adjustments to accommodate the new characters, but the programming itself was not complicated.

BB: Once you created *Metal Slug*, what was the transition like to making *Metal Slug 2*? I'm sure the planners had ideas to make the game more complicated, but the template and hardware was the same, so you had the tools in place to build the game. Was it easier to make *Metal Slug 2* and *3*?

AK: There wasn't a huge change for *Metal Slug 2*, but, as we added more moving parts on-screen, we had issues with frame rate and slowdown, so we had performance issues. We also had to figure out how to transform the player character into a mummy or into a fat guy.

> *"People always talk about putting cool things in games, but the Metal Slug team actually did it."*

BB: The second game is notorious for having frame rate issues, but they were addressed in *Metal Slug X*. Was this because you had more time to address those issues after the original game was finished?

AK: Yes, that's right. For *Metal Slug X,* the plan was to make hidden passages throughout the game and, while the planning team worked on drawing out the stages, the programming team worked on improving the performance of the game. After that was done, we worked on incorporating the original *Metal Slug 2* into *Metal Slug X* so that players could jump to and from stages in the original game and stages in the second game. Once we started working on trying to make that work, we found that it required a lot more work than we had initially thought, so, unfortunately, we had to cut a lot of the functionality that was initially planned for *Metal Slug X*.

BB: We heard from other staff members that a lot of the ideas that were built into *Metal Slug X* were originally being saved for *Metal Slug 3*, but, because *Metal Slug 2* was so popular and SNK wanted to capitalise on the popularity, they were put into *Metal Slug X* instead.

AK: Yes, that's correct. We did get to the point where the player could go back and forth between stages, but weren't able to get it into the game in time for *Metal Slug X*, so it got pushed back for inclusion in *Metal Slug 3*. I remember there was a sense of disappointment because we had put a lot of work into getting it to work, but it had to be omitted from *Metal Slug X*.

BB: It was finally implemented into *Metal Slug 3*, though.

AK: Yes, for *Metal Slug 3,* the stages are interconnected and the player can transport to different stages. The player can go to a different stage from the middle of one and, when they're done with that stage, they return to the original stage and fight the boss at the end of that stage.

BB: Alternate paths.

AK: Yes. The tricky part was trying to bring the player back from where they left because we would have to place them back in the middle of a stage.

BB: It's interesting to hear that you were disappointed at having to rush *Metal Slug X* out after putting all that work into the functionality. Usually, the game planners are more deeply affected by publishing and marketing decisions, but programmers generally seem more focused on just building the things they're asked to build. Were there any other creative compromises that you had to make that bothered you?

AK: There were a few things that didn't make it into *Metal Slug X*, but, eventually, we were able release all of it in *Metal Slug 3* so, ultimately, I think it worked out. I'm also thankful to my supervisor and our contact at SNK for defending the development team during development. I think it all worked out for the better, but I did feel regret that we had to release *Metal Slug X* in the state that it was released.

BB: Apparently Kujo-san and Hiya-san felt the same way. By the time you released *Metal Slug 3*, were there any new technological improvements that you were able to put in the game? Or was it pretty much just another chapter in the series?

AK: [There weren't really any technical leaps], it was more an extension of what we had made in the first game. But, we were getting proficient with the hardware and learning how to better develop on the NEOGEO with every iteration of the game.

> *"I remember saying there was already so much going on in the stage, and was this really necessary. The response was that the game wouldn't be fun without it."*

BB: Was there anything you were able to do in *Metal Slug 3* because of this increased efficiency that you weren't able to do in *Metal Slug 1*?

AK: Yes, things like the seeds that are released in the desert stage with pyramids. As we would improve the performance of the system, the planners would just keep demanding more visual details in the game. [Laughs] I remember complaining a bit about that.

BB: A lot goes on in the pyramid stage.

AK: Yes, a little into the stage, you should see seeds flying through the air. I remember saying there was already so much going on in the stage, and was this really necessary. The response was that the game wouldn't be fun without it.

BB: Were the seeds a last-minute request?

AK: This wasn't in the original plan and was added later in development, so we had to improve the performance for this stage later in the development of the game. There were a few rounds of performance optimisations with that game.

BB: When you collect and consume food in the game, it makes the player's character rapidly gain weight. You must have had to program in an entirely different sprite set for this new visual.

AK: Yes, that's correct.

BB: When [*Metal Slug 4* and onwards] producer/programmer Mamoto-san came on board, SNK was having financial problems, so they outsourced the development of the game after *Metal Slug 3*.

AK: Yes, I left SNK after the development of *Metal Slug 3*, and I haven't been involved with the series since then.

BB: He mentioned in a separate interview that he hadn't met you until you two started working together at your current company. He mentioned that he knew it was you who had programmed the first three Metal Slug games because your name was in the code that he got from SNK. It's interesting that you, who worked on the first three Metal Slugs, and Mamoto-san, who worked on every game after *Metal Slug 3,* now work at the same company.

AK: Yes, we're working together now at Cloud Creative Studios in Kyoto. When I first met him, we didn't exchange business cards or anything, but he knew who I was and started calling me 'Shisho' [master/professor/teacher]. He must have recognised my name.

BB: Mr. Mamoto was telling us that, when he was working on *Metal Slug 4*, from an objective standpoint, when you look at *Metal Slug* and – considering how much the team had to go through, they had none of the original code – the game actually turned out pretty well, all things considered.

AK: I'm not familiar with how much of the code they did or didn't have when making *Metal Slug 4*, but I didn't feel there was a downgrade in the quality of the game. What stood out to me was the quality of the artwork. Functionally, I thought it was quite comprehensive.

BB: The more senior programmers get, the less programming they seem to do, and many move into upper management or they become the Chief Technical Officer for a company. Are you still involved in the programming side of the industry, or have you elevated to a managerial role?

AK: I still write a lot of code. My role within [my current] company is to upgrade the systems and make sure the company has the latest tech. I do have a managerial position, but there are still areas where I need to write the code myself. It's tough because I'd prefer to write code, but, if I spend too much time coding, my other responsibilities suffer. I prefer programming to my managerial responsibilities.

> *"The fact that it's been ported to so many systems means that there are that many fans that still support the game, so I'm very grateful for that."*

BB: You grew out of the days of classic arcade game development when programmers would write their own engines or work in assembly, writing directly to the hardware. Nowadays, everything is moving towards pre-built game engines like Unreal and Unity. In a lot of ways Japanese developers fell behind when PC development became the standard. Did you find that transition to be difficult?

AK: The game industry has come a long way, and the technology has definitely become more advanced than what it used to be. It's easier to make games now than before. This is something I tell my staff here as well. The advanced library and tools help to conserve time, but they are not a replacement for skill. You still need to understand how the engines work and understand the fundamentals of programming in order to program efficiently.

We get handed the game concept from the planners and it's our job to visualise how to efficiently use the engine to make the game. I'm always thinking, "How should I combine these functions to make it do these things?" I think that's going to be the main job of future programmers. And that fundamental role, actually, has not changed from back in the day, and is something I have always done – meaning playing with the hardware and figuring how best to utilise it. Although, I do it because it's a necessity and that's what I liked to do. In my view, the responsibilities of a video game programmer has not changed a whole lot.

BB: Before you became a programmer, were you already a fan of video games?

AK: Yes, I did like games. I'd hang out by the arcades a lot.

BB: What were some of your favourite games?

AK: When I was in school, I'd play *Mappy* (Namco) and *Gradius* (Konami).

BB: In the Metal Slug series, what would you say is your proudest achievement?

AK: I don't feel I'm in a position to say what was good about the game, but I do feel that the development team worked really well together. We had a planner with a clear vision of what he wanted, we had the artists and programmers who figured out how to make that vision a reality, and, where we couldn't deliver, we came up with alternative ideas on how to make the game fun for the players. We worked really well as a team.

BB: Unlike the games you worked on at Irem, which are either extremely rare or have never been ported to any modern console, *Metal Slug,* on the other hand, has been ported to every platform possible. Looking back, how do you feel about the series' legacy?

AK: I don't think I should be the one to comment on the game's legacy. I think that's for someone else to think about and decide.

BB: Well, how do you feel about the game being ported to the latest systems?

AK: The fact that it's been ported to so many systems means that there are that many fans that still support the game, so I'm very grateful for that. I think the only difference between the Irem games I worked on and *Metal Slug* is that there just happens to be more people that liked *Metal Slug* and not enough fans of the Irem games to warrant a porting of the game.

BB: When Kujo-san left SNK to go work on console games back at Irem, he said that Meeher was very upset that he left. Do you remember that key departure and did it have any affect on you?

AK: I was very sad to see him go as well. But he had something he wanted to do, and that doesn't always align with what you've been doing. I wished him luck.

BB: Did you think of returning to Irem with him?

AK: Not at the time, no.

BB: We've heard that Akio-san is very shy about talking to the media. Does that match up with his personality of when he was at Irem and SNK? Was he publicity shy?

AK: Yes, he was a very private person. I don't like being in the public eye, either, so I have even less contact with him.

BB: Mamoto-san told us that you were shy, as well, so we really appreciate you sharing your time and offering your insights of the Metal Slug series. We're very grateful for that.

AK: You're welcome.

Kazuhiro Takeshita

Kazuhiro Takeshita is not a name you would normally recognise. By his own admission, he is not a game creator, has only fleetingly ever crossed paths with the Metal Slug development team, and originally began his professional career in the fashion industry. But Takeshita is important to the story of Metal Slug because of his time spent in various roles at SNK, most notably as the president of SNK Europe. Thanks to his close working relationship with SNK founder, Eikichi Kawasaki, Takeshita is able to offer a first-hand account of a rarely seen side of the popular game developer, publisher and hardware manufacturer.

BB: When did you start in the video game industry? Did you come on as a creator or did you join at the managerial level?

KT: I'm not a game creator. I originally joined SNK back in 1988. Working in the game industry was not my first career choice. I initially worked in apparel, the clothing industry, but I gave up and began looking for a new job and a new challenge. I was looking for a job where I could speak English and travel abroad. I was looking through the classifieds, when I found a job at SNK for sales and marketing. I was intrigued because I liked playing games. In my childhood, I used to play a game called *Sasuke* [*Sasuke vs. Commander* was the official title] quite a bit, so the name SNK was familiar to me, and I applied for the job. There was a lot of motivation for me to apply to SNK because of a person named Mr. Shinichi Ikawa, who was in charge of international sales at SNK in 1988. It was when SNK was making a comeback around this time from a financial crisis, and the overseas department was being headed by Mr. Ikawa. I wasn't confident in my English ability at this time, but Ikawa-san encouraged me to join him. Once I joined, Mr. Ikawa took me all over Europe.

BB: That's a good start.

KT: Yes, it was a very good start. He took me to many countries, and I met with many distributors who SNK was working with at that time. At the time, Mr. Ikawa was handling the US and all of Europe and Asia. Once I was settled in, I was put in charge of all of Europe. That was my start.

BB: You were President of SNK Europe from 1994 to 1998, is this correct?

KT: Yes.

BB: But you had initially joined SNK in 1988?

KT: That's right. I was at the Japan office for a number of years in sales.

BB: You mentioned *Sasuke*. What was your first computer experience? Was there a certain era that drew you to the gaming industry?

KT: At the time, Famicom was coming to the market, and I bought a Famicom, but what I really loved were the arcade games. As I mentioned, I played a lot of *Sasuke,* and I don't remember the names of other games that I was playing at the time, but I remember being very impressed with *Sasuke*. It was a coincidence, because, when I was playing *Sasuke*, I didn't care who had developed it. The developer's name was very strange, Shin Nihon Kikaku, which later became SNK. It was a coincidence that I would end up working for SNK. I never even dreamt that I would join this company later in life.

BB: When you joined SNK, you had moved from the clothing industry. What was the criteria for getting the job?

KT: To be honest, I wasn't interested in joining the industry because the gaming industry – at the time – did not have a very good reputation. People talk about the three Ks of the industry: kitanai (dirty), kowai (scary) and kurai (dark).

"During the Space Invaders *era, there was a shortage of 50 yen and 100 yen coins because of the popularity of these games."*

BB: Is that because of the murky atmosphere of Japanese arcade centres?

KT: Yes. Children were advised not to go to arcades because there were a lot of bad people and gangs hanging out at arcades. It was easy money at the time. After *Space Invaders* came to the market, people looking for easy money jumped on the opportunities. They initially bought PCBs (printed circuit boards) and put them in table cabinet machines in coffee shops. During the *Space Invaders* era, there was a shortage of 50 yen and 100 yen coins because of the popularity of these games.

BB: The perception of the industry was not good at the time.

KT: Exactly, and my interests were more with the clothing industry. I'm not a designer but I wanted to work with designers to create something new. However, I didn't want to work in Japan only. I wanted to go travel the world and discover new designers.

I'm not a spiritual guy, but I felt this was a sign or destiny. At the time, I was really lost and happened to grab a recruitment magazine, flipping through the pages, when the position at SNK jumped up at me and really piqued my interest. Because a gaming company was looking for a salesman with opportunities to go abroad for international sales, which is exactly what I was looking to do. So I jumped on the opportunity.

BB: Once you joined SNK, I'm sure you quickly learned the inner mechanics of the gaming industry.

KT: At the time, I didn't know anything about the culture or proper manners of sales in other countries, and my English wasn't very good. There was a learning curve until I felt adjusted to the games industry business culture. I didn't care about the game mechanics or how the game was developed. My only concern was how soon I could get accustomed to the environment, and that I was able to meet the sales expectations of Mr. Kawasaki and Mr. Ikawa.

BB: In general, what was it like to work for SNK?

KT: SNK, at the time, was very chaotic. Mr. Kawasaki, the owner and founder of the company, was respected by everyone because he had a keen instinct about the business and we were attracted to him. I knew that he would open doors and was onto something big. I knew that there would be challenges, but there would also be big rewards in the future. That was his charm and is what people were attracted to.

Mr. Kawasaki was always thinking about the quality of the games and always involved in the development process. And he didn't want the sales team to get involved in the development process. This may apply to other companies, as well, but the development team was the sanctuary. Nobody could touch the development team, except Mr. Kawasaki. But, when *Samurai Shodown* was in development. Mr. Kawasaki came to see me and instructed me to follow him. I remember being nervous because I didn't know where he was taking me. He led me to an office in the building where the development team was located. In the office, there was a NEOGEO cabinet and other men from the development team. Mr. Kawasaki told me to sit down and play, and give them my feedback about the game.

Turns out the game was the prototype for *Samurai Shodown*. I was the only person from the overseas sales team who was asked by Mr. Kawasaki to play the game. I remember choosing Haohmaru and played the game. I don't remember what I said clearly, but I gave them my feedback and left the building. Later on, I got a phone call from Mr. Yasushi Adachi, the producer for *Samurai Shodown,* and he wanted to have a meeting with me to discuss my feedback in further detail. I think he wanted to hear my opinion, as the head of sales in Europe, on how *Samurai Shodown* would be received in Europe. That was my first experience working with the development team.

BB: For the time, it seems like it was a rare thing for the development team to ask the sales/marketing team for their input.

KT: Mr. Kawasaki didn't usually like to do that, so I don't know why he chose me at that time. But, maybe he just wanted my opinion from the viewpoint of European customers. I don't know his real intention for bringing me in that day.

"I'm not a spiritual guy, but I felt this was a sign or destiny. At the time, I was really lost and happened to grab a recruitment magazine, flipping through the pages, when the position at SNK jumped up at me and really piqued my interest."

BB: It's also interesting that he protected the development team from outside influence. If anything, marketing is usually a little too involved sometimes, in some places, especially in Western companies.

KT: Sales and marketing don't typically know anything about development. If they are asked to comment on the development, they can say anything they want and it can lead to more confusion within the development team because [the development team is] pure. If the guy from the domestic sales team says one thing, and the development team implements his suggestions, overseas might say the opposite and confuse the development team.

I think Mr. Kawasaki understood that instructions to the development team must be consistent. We might see the game at alpha or beta, but we normally didn't see the game until after most of the game was complete. Mr. Kawasaki didn't want unnecessary interference with the development team. I think he instinctively understood that the development team needed to be protected from outside influence. I think that's why he respected development people.

BB: That's interesting. He sounds similar to the late Isao Okawa, the former chairman of SEGA and SEGA's parent company, CSK. They shared a similar attitude, it seems. Mr. Okawa was personally and financially invested in SEGA and had a similar perspective regarding their development teams.

KT: I don't know who Mr. Okawa was, but, actually, I currently work for Confidence, Inc., which is a division of Amuse Capital, which is run by Mr. Hayao Nakayama, and he was the first CEO of SEGA Enterprises.

BB: It's a small world, right?

KT: Yes. You can't escape the industry once you start working in it. Partly because it's attractive and partly because it's unique compared with other industries. Other industries also have their unique quirks, but the gaming industry is a little peculiar.

BB: Where did you go after you left SNK Europe in 1998?

KT: Actually I left Europe in 1998 because SNK was ready to launch the NEOGEO Pocket, so Mr. Kawasaki asked me to come back to manage NEOGEO Pocket sales in Japan.

BB: The NEOGEO Pocket was great.

KT: I loved it.

BB: But that was a tough market. That's Nintendo's space.

KT: I remember we had a marketing campaign that said "I'm Not Boy," because Game Boy was our competitor. We wanted to compete against Game Boy by saying "I'm Not Boy." I thought it was very catchy, but I don't know how Nintendo felt about that.

BB: Was that your concept?

KT: Of course not. That was made by the marketing people at that time.

BB: Controversial for sure. It's kind of edgy.

KT: Yeah, I liked it, too.

If you're writing about *Metal Slug*, I feel that I need to tell you about this. *Metal Slug* was the first big hit game [where I experienced a hit game] for me in Europe. Strange story, but, at the time *Metal Slug* was internally announced, I played a demo version. I really liked it and it excited me a lot. I believed that this would be a big hit, so I wanted to get good terms from Mr. Kawasaki. I negotiated with him. I simply wanted to get the best price [on hardware units] from SNK Japan. Mr. Kawasaki asked me how many I could sell. And I said 5,000 for the first order.

> *"Other industries also have their unique quirks, but the gaming industry is a little peculiar."*

BB: You're talking about the price of the arcade machines?

KT: No, the cartridge [for *Metal Slug*]. This is the way we negotiated with people about the terms of sales. I told him I wanted to sell 5,000, and asked how much would he would sell them to me for? He said 25,000 yen. [roughly $250 USD, £175 GBP].

At that time, my biggest customer was in Naples, Italy, and I was always having to compete with one of our biggest distributors in Italy. Because their price [from SNK] was the same as ours or sometimes less. I always had hard negotiations with Mr. Kawasaki every time a new game was launched. But I always managed to get the same price [for *Metal Slug*] as our Italian distributors, and I sold more than 5,000 units within a month or so. And that was my best record for NEOGEO cartridge sales ever. Of course, I sold many other games such as *THE KING OF FIGHTERS* and other titles in the range of 2,000 to 3,000, but never as much as 5,000. As a first target, that was a huge record for me.

BB: This was for the first *Metal Slug*?

KT: Yes.

BB: That's interesting, because other development team members have said that the first *Metal Slug* didn't do as well as *Metal Slug 2, X* or *3*.

KT: Maybe, but *Metal Slug 2*, *X* and *3* wouldn't exist without the success of the first *Metal Slug*. For me, *Metal Slug* was the biggest success in my career. Of course, we sold a lot of the sequels, as well. But, as a new IP, that was a really memorable title for me.

BB: Why do you think it was so successful?

KT: Because the character animation and graphics were really nice. We had never seen this type of detailed pixel animation.

BB: It does have beautiful artwork.

KT: Yes, it seemed to me that it had a handcrafted taste. I really liked it.

BB: Even now, you rarely see its kind anywhere. 20 years later, it's still amazing.

KT: I think it's a little similar to [game developers] Vanillaware. They have a similar taste and style.

BB: You're right. It feels like watching a manga in motion.

KT: Later, when I set up [game publisher] Ignition Entertainment Japan, I worked with [George] Kamitani at Vanillaware for *Dragon's Crown*.

BB: So, you were at SNK for the launch of the NEOGEO. Do you remember what the atmosphere was like? With PlayStation, SEGA Saturn and Nintendo 64 on the market, SNK was a solid third or fourth option. SNK was a little more niche, but, in retrospect, NEOGEO was really a hardcore gamer's machine. What are your memories of the NEOGEO?

KT: That was back in the days when Mr. Ikawa was in charge of international sales. When I heard about the concept for NEOGEO, it was a 'Multi-Video System', the MVS. We launched a 6-slot and 4-slot cabinet. Our catchphrase was 'One console holds six games', and players could easily choose between new games. The cost of each game was cheaper compared with buying one PC board. So, the system was a very operator-friendly game system. This concept was shared with all of the distributors and it was well-received.

We held an international meeting in Osaka to launch our NEOGEO Multi-Video System. We invited people from France, England, Italy, Spain, Belgium, and also the US and Taiwan. Many people came and filled our boardroom at SNK. We placed a few cabinets with the 4- and 6-slot machines and Mr. Ikawa announced the NEOGEO MVS and explained to everyone how it worked and how it was a new solution for the arcade operators, and how easy it would be to install new games and replace old ones.

The NEOGEO MVS gave our customers many options in terms of types of games and pricing. Once they purchased a motherboard, they didn't need to buy the cabinet. SNK offered a cabinet, but the customer could use their own JAMMA-compatible cabinet. All they had to do was buy the 4- or 6-slot motherboard with the software to start. This gave variety to the players.

> *"I managed to get a good price [for* Metal Slug*] and I presented it to my territory and sold more than 5,000 copies within a month or so. And that was my best record for sales."*

BB: So, the reception was good?

KT: Yes, very good. It started very well. Systematically, it was very good. Mr. Ikawa wanted to introduce this system into the arcade industry slowly, but surely. But that didn't work out so well because, later, Mr. Kawasaki wanted to sell as many motherboards as possible, as quickly as possible, because we measured our success by the sales of the motherboards. Just like Nintendo sells hardware first and then software for the system. So, SNK headquarters tried to negotiate better terms with distributors who were interested in selling as much hardware as possible, which led to price differences between territories, and, in turn, led to fierce competition between our distributors. Some people were following the rules and others were given exceptions to the rules. I had to deal with many upset distributors because of this disparity, but, thanks to this competition, NEOGEO motherboards were spread all over the world quickly. This was how NEOGEO was well-accepted by [different] markets.

> *"*Metal Slug *might have resonated with the European audience because it had a very Western-style World War II setting."*

BB: In addition to *Metal Slug*, what other games come to mind as a huge success?

KT: I think *THE KING OF FIGHTERS*. It was the most successful title overall on the NEOGEO system. *Super Sidekicks* was also very popular, even in Saudi Arabia and the Middle East. In general, the biggest sellers were the THE KING OF FIGHTERS series, then the Metal Slug series, and third biggest seller was the Samurai Shodown series.

BB: *Metal Slug* might have resonated with the European audience because it had a very Western-style World War II setting. Many countries have strong feelings about WWII, and the characters were Western in design, the soldiers and the tanks were Western in design, and yet it still has that manga flavour, so it was probably successful for a lot of reasons.

When you were president of SNK Europe, your role was primarily to market and sell the arcade hardware?

KT: Yeah, it was simple. My role in the company was defined by sales. Sales of hardware and software.

BB: Was marketing the NEOGEO home consoles also your responsibility?

KT: Not really. I was mostly in charge of marketing the arcade system. The home system was assigned to another guy when we launched the NEOGEO CD.

BB: Did the home division ever come to you for advice on strategy to sell new hardware or games for home release?

KT: I don't think so. This was a totally new market for SNK, and the arcade business model had nothing to do with the strategy of home system [marketing]. SNK was an arcade-oriented game maker, so I remember that it was hard to understand and accept PR/marketing costs required to increase market recognition of our products.

BB: You said you loved *Metal Slug* when you first saw it. Does that mean you saw the game before it was released?

KT: We always got a test version of the game prior to release.

BB: So, did you see the original game when the player just played as a tank?

KT: A tank?

BB: Yes, initially the game was designed to be played using just the tank.

KT: No, I never saw that version. The sales team only saw the game when it was close to a final version. Before the release, we always do a location test. The location test gives us an estimate of how many units we expected the game to sell. We reported the results of the location test to HQ with our sales estimates. We set up the game in set locations and watched how people play and their response. We would do it for two to three weeks, and the operator would send me the results and I would relay it to HQ.

Japan might choose to take some points seriously and change the game accordingly. Once they've made the final adjustments, we would do another location test. So, we were involved in this way, but not from the beginning of the development. It's news to me that the first concept of *Metal Slug* was to play as tanks.

BB: Do you remember if you had any feedback from Europe to give to the development team?

KT: No, I didn't provide feedback to the development team, back in the days. My only contact in Japan was with my direct boss in Japan or with Mr. Kawasaki.

BB: This is interesting because you specifically didn't have to market to the home user at all. You were selling directly to the arcade owner or distributors. Purely business-to-business, not point of purchase.

KT: Right.

BB: Did you ever meet any of the design team or the developers?

KT: Yes, Mr. Kawai. I think he was the head of the Metal Slug team. I didn't know the other development team members.

BB: Do you remember the general buzz of *Metal Slug* after it was released?

KT: There was one specialised publication, called *Game Machine*, but this handled mostly industry news, not specific game news like *Famitsu* does. So, when *Metal Slug* was released, there was no buzz like you see on social media or the Internet these days. We announced the release by fax to distributors for pre-orders, shipped after receipt of cash, then continued to take additional orders. This showed us how popular the game was in real time.

BB: Did the distributors say anything?

KT: If the game was good, what they always do is to negotiate the price.

BB: I know you said *Metal Slug 1* was the biggest success for you, but were you able to sustain the success with the next few Metal Slug releases?

KT: The first one was really memorable for me, because of its quality, game style, and the sales record. *Metal Slug 2* and *Metal Slug X* were also big successes, but the first one was so impressive because it came out suddenly and grabbed everyone's heart.

"The first one was really impressive for me because of the game style and because of the sales record. But Metal Slug 2 *and* Metal Slug X *were also big successes."*

BB: Did the popularity sustain itself through the sequels? Did the audience grow with *Metal Slug 2* and *Metal Slug X*?

KT: I think the numbers dropped for *X* as it was quite similar to *Metal Slug 2*.

BB: The NEOGEO was a fine piece of hardware, but its technological ceiling was pretty firm in an era when so much was shifting to 3D, thanks to PlayStation. The SEGA Saturn was a beautiful machine for 2D visuals, but people don't care about beautiful 2D games anymore. People would rather see primitive 3D graphics because that was the new thing. Did you have concerns that SNK would be left behind as the industry was moved towards 3D?

KT: I was feeling a certain limit when I was in London, before I left [SNK Europe]. We tried to sell as many PC boards as possible using the same sales style as before, and our focus shifted from US/Europe to China. Price competition became fiercer than before. Especially people in Europe and the US, they were getting fed up with the competition with Asia, but SNK Japan had to continue to make money, and the money was coming from Asia. We continued to release 2D games, but companies like Namco, Bandai, even Konami and SEGA had their own 3D fighting games. SNK also tried to develop the NEOGEO 64 with 3D graphics.

But, having said that, my thought was that we should maintain the traditional 1-slot PCB and continue selling games cartridges on it. Because SNK had already established a good market for the NEOGEO system, all we needed to do was focus on creating the same success with NEOGEO 64. SNK made a huge investment in making 3D games. But, when I first saw *Samurai Shodown 64*, I was really worried about the future of SNK, because the quality was not enough to compete with SEGA or Namco. I think I saw a big wall between SNK and those bigger companies. We had to re-evaluate SNK's strategy. We didn't necessarily have to go forwards or backwards, but to hold steady and rethink our situation.

We had to respect the distributors who followed us for a long time as they established a very sustainable market for us where they could introduce new cartridges to new customers. I thought we should focus on those markets and continue to make 2D games by using our craftsmanship of making [pixel art] games. These games could not be done by SEGA or other companies. We had a big argument internally about this. Management's direction had already gone towards 3D and that type of dedicated machine sales. All our distributors complained to me, asking me if we were going to cut them off and stop making games for the 1-slot PCB or the 16-bit NEOGEO, or not. We came up with explanations, saying we weren't throwing those away and would maintain support of [16-bit games], but, in parallel, we had to remain competitive within the marketplace, so I told everyone that we needed their help from now on.

But, when they saw *Samurai Shodown 64*, they were like, "What the hell is that?" I never shared these types of realistic comments to management in Japan because I think they already knew and had heard similar responses from the US and other territories.

BB: Did you have any feelings about how *Metal Slug* was censored in the West? For example, Germany doesn't allow red blood in games sold there.

KT: You mean, was it because it [featured] Nazi-style enemies and imagery, or something like that? We had a big argument about this internally. We were advised to switch the blood colour to green or something, especially by German distributors. But we didn't change anything from the beginning. Our stance was: "If you don't like it, don't buy it." We were very aggressive at that time. I think it was our company policy. We never wanted to change anything, even if customers or salespeople said something. So, we released as-is and, if for whatever reason, political or reasons, we kept saying, "If you don't like it, don't buy it."

BB: The first *Metal Slug* might not have been censored, but it looks like for *Metal Slug 2* or *Metal Slug 3*, they took some of the red blood out. By that point, you were shooting zombies, mummies and aliens, too.

KT: Yes, we had to do it eventually, and it was switchable by the operator.

> *"We were advised to switch the blood colour to green or something. But, we didn't change anything. Our stance was: 'If you don't like it, don't buy it'. We were very aggressive at that time. I think it was our company policy."*

BB: Do you remember the excitement, whether great or small, for *Metal Slug 2* when it came out?

KT: I don't remember exactly the feeling when *Metal Slug 2* came out, but, by then, it was such a big franchise already, every time a new Metal Slug title was released, I knew we could expect a lot of sales.

BB: Haggling.

KT: Right. The distributors don't say things like, "It's a great game. We're so excited for the new release." That's not how salespeople talk. If they think it's a good seller, they come straight to me and ask "How much if I buy this quantity?" This is a cash business.

BB: When you returned to Japan, it was to sell the Pocket?

KT: Yes.

BB: Which is interesting because it's somewhere between the 'arcade' and home consoles; it's still providing a very arcade experience, for the most part. And the Metal Slug games for the NEOGEO Pocket were super good. But, it must have been an adjustment.

KT: That was a really challenging time for me. Mr. Kawasaki wanted me to organise the sales and system in Japan. I came back to Japan and had a staff of seven or eight people, who worked on manuals and packaging, etc., which I didn't do in Europe for the arcade business. To be honest, I didn't know [how to manage a production team]. So I let my staff do their thing and supervised it. But that didn't last for too many years. When I came back, I settled for six months, then for the first E3 [Electronic Entertainment Expo] Mr. Kawasaki asked me to attend because SNK US had a booth. We were planning on announcing NEOGEO Pocket at E3 at that time. Once I was there, Mr. Kawasaki gave me one order, which was to try to meet with as many European customers as possible at the show. And, afterwards, to go to Europe to set up distribution for the NEOGEO Pocket right after E3, without first returning to Japan.

> *"Mr. Kawasaki was calling me every day to ask how my meetings were going."*

BB: He asked you to go directly back to Europe?

KT: Correct, I went to Europe after E3.

BB: So, you didn't have to move back, just visit for business?

KT: My mission at this time was very heavy because I met with many new people all over Europe. Mr. Kawasaki asked me to make a list of all the people I visited. I spent three weeks, visiting distributors in one country or another, and then Mr. Kawasaki came to Europe after that to join me. I think he was in France with his friend. At the time, he had good connections with a French company. Mr. Kawasaki was calling me every day to ask how my meetings were going. After three weeks of meetings, he asked me to join him in Naples. Naples was the last day of my business trip. At the end of dinner, he says to me, "I've made a decision. You have to return to France and work with a French company, called 'Bally France' in a joint venture." It was only six months since I had come back [to Japan] from London, but I was ordered to go back and stay in France to ensure the joint venture was successful. Needless to say, I immediately responded, "Yes, Sir."

BB: You got the world-travelling you wanted to do.

KT: If this was a normal company, I would have probably said, "No, sorry." I finally had settled down with my family after six years of my duty in London.

BB: Did your wife mind?

KT: She was OK, because I was an SNK man, and she also used to work with Data East in the US as personal assistant to executives. So she understood the Japanese gaming industry.

BB: That's a hard life. Coming back from Europe to sell the NEOGEO Pocket, and then get sent back less than a year later. It's like *Mission: Impossible*.

KT: Kind of. Everything I did at SNK was like *Mission: Impossible*.

BB: How long did you end up staying with SNK?

KT: Until 2000. As I said earlier, I was in France for a joint venture at the time, for two and a half months, living in a hotel. I had to go through a joint venture with a French company, but that French company wasn't a proper gaming distributor or publisher. They were a gambling machine company, and it was worse than a video game company. I was in such an awkward situation, because they watched me every day, as if I was a spy or something. SNK was, at that time, in a really bad financial situation. Nobody thought things were going well in France, and I was just waiting for my last date of the company in an isolated space in France.

> *"Everytime a new Metal Slug title was released, I knew we could expect a lot of sales. Whenever there was a new Metal Slug release, I'd instantly get people asking me about price and negotiating with me."*

BB: You knew that the end was near and you were waiting for notice from the company, but you left in 2000 before the company went bankrupt.

KT: I decided to get out of Bally France and returned to Japan, preparing for resignation. I had a face-to-face meeting with Mr. Kawasaki. I had been through whatever problems were in front of me because I liked working for SNK and had deep respect for Mr. Kawasaki. But, if SNK was going into someone else's hands, there were no more reasons for me to stay. So I decided to leave the company.

BB: Is that when you moved over to Sammy?

KT: Yes. I knew that Mr. Kawasaki wanted me to stay in whatever role would make me happy, but I wanted to change as I was so tired.

Sammy's offer opened another door to new challenges, but the time I spent with Mr.Kawasaki at SNK was the foundation of my business experience, with unforgettable memories that stay with me wherever I go.

I said that *Metal Slug* was the most unforgettable NEOGEO game for me, but there is one more episode, relating to *Metal Slug* which I have not told anyone yet. *Metal Slug* was released in April before 'Golden Week' – a long holiday week in early May in Japan. I had a girlfriend (who is now my wife) in the US at that time and negotiated to go to her place with her, during Golden Week, since the HQ office closed during this period. Her condition was that I had to sell all 5,000 units before Golden Week. I didn't believe that I could achieve it, but, of course, I made it and went to the US, and I married my wife two months later. Now you know why *Metal Slug* is the best game for me.

BB: Thank you for this facinating insight into your career at SNK and memories of Metal Slug.

Sadaki Matsumoto

With Metal Slug's classic entries so firmly established in the gaming consciousness, it'd be easy to forget that two instalments in the series were released for SNK's NEOGEO Pocket Color – *Metal Slug 1st Mission* and *Metal Slug 2nd Mission* – both developed for SNK by Japanese developer, Ukiyotei. Despite the rather limited specs of the Pocket Color hardware, these games did a noble job carrying the Metal Slug torch, offering a balance of crisp visuals and responsive gameplay. Although Ukiyotei no longer exists, ex-Ukiyotei staff member and *Metal Slug 1st* (and *2nd*) *Mission* background artist, Sadaki Matsumoto, made time to speak with us about the creation of both games, offering rarely heard insights into the development of NEOGEO Pocket games. Matsumoto-san spent most of her career as a background artist, and, in 2015, left the game development industry, and currently works as a teacher of 2D graphics at Vantan Game Academy and Osaka Seikei University.

BB: Hello. Could you please introduce yourself and describe what your roless were on *Metal Slug 1st* and *2nd Mission*?

SM: My name is Sadaki Matsumoto. I was only involved in Metal Slug in a limited capacity, and it was for [*Metal Slug 1st* and *2nd Mission*]. I was responsible for the background art of those titles.

BB: When you worked on these titles, you were at Ukiyotei?

SM: Yes, that's correct. We were hired by SNK to port the Metal Slug titles to the NEOGEO Pocket Color.

BB: How big was the team that worked on these titles?

SM: Three designers [in Japan the term 'designers' usually equates with 'artists'] for the backgrounds, three designers for the characters, one planner, and I think there were three programmers. About 10 to 13 people.

BB: Was it primarily the same members for both games?

SM: Yes.

BB: Did you have any involvement in the design/planning of the games?

SM: I was involved exclusively on the background design only.

BB: The original Metal Slug games were known for their highly detailed, sophisticated backgrounds. Considering the limitations of the NEOGEO Pocket Color, what sorts of adjustments did you have to make to port it to the console?

> *"We did go through the process of downsizing the original background art, but it was still too complex for the system, so we had to recreate every pixel from scratch."*

SM: Yes, the original graphics were so gorgeous and detailed: in contrast, the specs for the NEOGEO Pocket were so small, so it was very difficult. What I tried to achieve was to decrease the colours to fit the limitations; the NEOGEO only had four colours. I did my best to try to get the game to look like a Metal Slug game, but the pixel count in the NEOGEO Pocket Color were so limited. It's built like a puzzle. The pixel pieces fit together like a puzzle to make an image. The background is broken down into individual slices, into 256-pixel arts made up of 8x8 pixel blocks, which we then assembled together.

Back then, we were using floppy disks to transfer data between computers, which made things difficult as well.

I have always loved Metal Slug artwork and think that it's really incredible. And I really respect the artists that drew them. So, I did my best to try to bring it as close to the original, even under the limitations that were given to us. I remember working really hard to achieve the best results under those conditions.

BB: Did you redraw everything from scratch, or did you need to convert the original data?

SM: We made it from scratch. For reference, we did go through the process of downsizing the original background art, but it was still too complex for the system, so we had to recreate every pixel from scratch. For Metal Slug, there were at least three layers – background, playfield and foreground. But, for the NEOGEO, the background had to be flat.

BB: Why was it necessary to redraw all the backgrounds? Was it the difference in dimensions?

SM: Because of the difference in specs.

BB: The original *Metal Slug* was very lush and didn't have a lot of repeating tiles. But, in *1st Mission,* it looks like there are a lot of repeating tiles used to make the background.

SM: 8x8 pixels is called a 'character' and the number of characters was very limited in the Pocket Color. I wish I had the precise specs of the game, then I could tell you exactly, but it was very small. So, in order to fit within the specifications, we designed characters that didn't have movement, and we were also unable to combine layers of images on top of each other.

BB: The original Metal Slug games were a straight left-to-right side-scrolling game, and this game has an overworld map where you can select where the player wants to go for different missions, and there are a lot of doors that the player can go into. It looks like you were actually given Metal Slug assets to make an entirely new game.

SM: Yes, that's correct. It was impossible to port the original game to the Pocket Color, so the planner had to come up with new ways of experiencing the Metal Slug universe.

I'm looking at the video now and it actually looks like it might have had two layers in the background. Some of this is familiar and I'm beginning to remember working on the game. I remember really struggling with the lack of flexibility in the system.

BB: It's actually kind of bold that SNK hired Ukiyotei to make an original Pocket Color game, as opposed to a direct port, although, for technical reasons, it is understandable.

SM: The artist for the foreground art was very talented and did a great job creating the movement of the characters, I think.

BB: How were your duties split up between the three background artists?

SM: We split up the stages into three groups so that each artist worked on their levels from beginning to end. There were times when we would assist other artists but, in general, we were each responsible for specific levels. Each level was broken down into such small pieces that only the person working on a specific level could decode it.

BB: Do you recall what the development time was for each game?

SM: I was trying to remember that, because I figured you'd ask, but I don't think it was very long.

BB: From speaking with other developers on Metal Slug, it seemed like SNK was pretty ambitious with their deadlines. So, maybe six months?

SM: Yeah, I think it was about six months, maybe a year…? I can't remember. I'm pretty sure it was under a year.

BB: The original Metal Slug games took as long as they did because they changed the game from playing as a tank throughout the entire game to playing as a soldier. If it wasn't for that, it would have completed sooner, so six months to a year sounds about right.

SM: I just remember that it was a lot of work.

> *"I have always loved* Metal Slug *artwork and think that it's really incredible."*

BB: You also worked on *Bust-A-Move* for the Pocket Color? It looks like Ukiyotei did a lot of work for SNK in a short period of time.

SM: Yes.

BB: Did you work on *1st* and *2nd Mission* sequentially?

SM: Yes, we started working on the *2nd Mission* shortly after. I had saved the floppy disk with the data from the project for a long time, but I eventually got rid of it and really regret it now. As part of the assets of the original *Metal Slug*, SNK had given us the original artwork. It was SO beautiful and I had treasured it, but I seem to have misplaced it. It was really, really beautiful.

BB: It would be hard to access the data on a floppy disk nowadays.

SM: True.

BB: How did you start working in the video game industry? Did you go to art school?

SM: I went to an art school for graphic art. After I graduated, I was looking for work, and my friend, who actually worked at Ukiyotei as well, applied to work at Capcom. They were looking for character designers and she suggested I apply in the games industry. I applied for the character design position at Ukiyotei but, once I got the job, I was assigned to work on the backgrounds.

BB: How long did you stay at Ukiyotei?

SM: About seven years.

BB: You mentioned that you're teaching at Vantan Game Academy. I remember Capcom had training and a dorm for their new employees. Is this something similar?

SM: Vantan is a specialised school for game development in Osaka and Tokyo. I left the industry in 2015 and hadn't been working in the industry for three years. But, last year, in 2018, I started teaching at this school that specialises in video game development. I'm teaching the class on 2D backgrounds.

BB: Do you have any other insights into the development of the Metal Slug games?

SM: SNK was very strict about the quality of the game. I remember there was some harsh feedback, and being extra stressed during the development of *2nd Mission*.

BB: What type of feedback did you get about the colours or the game?

SM: They told me that, just because the specs of the game were limited, it didn't mean we could lower the quality of the game.

BB: That's tough.

SM: That was the feedback during *2nd Mission*. Their feedback was even harsher for *1st Mission*. They sent back the first pass and I had to redo it.

BB: How much interaction did you have with SNK? Did you visit their office or did they ever come to your office?

SM: The planner went to SNK to present our materials. Then he would return with their feedback and relay that to the team.

BB: What were your feelings when the planner came back with the negative feedback on your work?

SM: I remember that well. I felt I hadn't given it my best as a professional creator and was ashamed. Just because it was challenging, that doesn't excuse submitting work that isn't up to par with what is expected. The threshold that I had given myself was too low, and it was embarrassing to have them call me out on it.

> *"I'm very honoured that I was able to work on a port of such a famous series."*

BB: But the feedback wasn't specifically against you, was it?

SM: Some of it was towards the entire team, but it was mostly specific to the work I had submitted.

BB: Surely it was a good learning experience? The result was that you were able to understand better what their expectations were, and do a better job.

SM: Yes, I'm grateful for the experience. I worked extra hard because of it.

BB: Since you learned what was expected of you during the development for *1st Mission*, did things run smoother in the development of the second game?

SM: Yes, I think so. I wanted to make sure not to repeat that experience, so I worked really hard.

BB: Did you always want to work in the video game industry?

SM: That's just the way it happened. I thought I was going to be able to draw characters when I applied. I didn't know that, in this industry, the background artists and artist who design the characters are all called 'character designers'. So I landed this job under a misunderstanding. I was surprised once I joined the company.

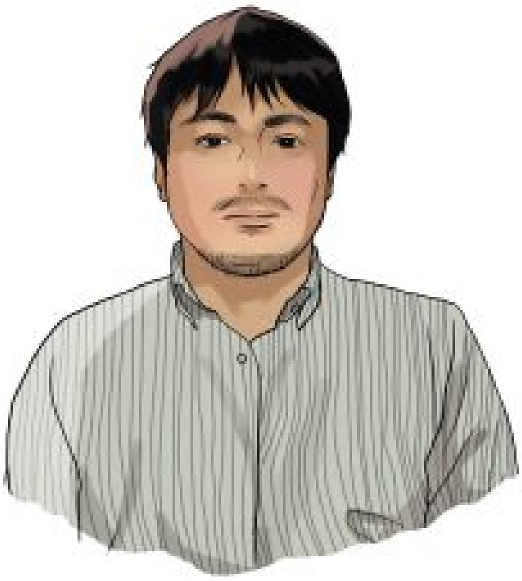
BB: You're listed as a character designer for the puzzle game, *Bust-A-Move*.

SM: I've always worked on the backgrounds. It's misleading because both the character and background designers are called 'character designers' in the credits. I don't remember working on *Bust-A-Move*, but I worked on so many. If my name was in the credits, I guess I did!

BB: Do you have any last comments?

SM: I'm very honoured that I was able to work on a port of such a famous series. And it was such a learning experience to create something within such restrictions. I learned how to bring out the quality of the art, despite these limitations. It was a difficult experience but one that helped me grow as well. I'm very grateful for the experience. And the beauty of the original *Metal Slug* art assets have always stayed with me, and I always strived to try to reach that level.

BB: Thank you so much for taking the time to talk with us.



Hidenari Mamoto

Hidenari Mamoto was not part of the original *Metal Slug* development team, nor was he a member of the second or third games. He was, however, a great appreciator of what had come before, so, by the time he – in the employ of Noise Factory – took over the development of nearly every Metal Slug game from *Metal Slug 4* and beyond (including some truly inspiring work on *Metal Slug Advance*), he was ready for the challenge. Mamoto may, in fact, be the unsung hero of the later entries in the Metal Slug series. Read on to discover why...

BB: Thank you for joining us today. We tried to do our homework and research all the games you've worked on, but it's hard to find, so thank you for sending us this list of titles you've worked on. What was the first Metal Slug game you were involved in?

HM: *Metal Slug 5*, but I was also involved in the early planning stages of *Metal Slug 4*.

BB: *Metal Slug Advance* was released about the same time as *Metal Slug 5*. Did you work on that simultaneously?

HM: Yes, that we developed back-to-back.

BB: Since you were involved with so many Metal Slug titles, let's start with your first entry.

HM: First, I worked at Noise Factory.

BB: For the entire time that you worked on Metal Slug games, you were at Noise Factory?

HM: Yes. I believe Mega Enterprise helped finance the development of *Metal Slug 4* when SNK was having issues. A former SNK employee, Keiko Ijuu, is the founder of Noise Factory.

BB: When talking with other developers, Noise Factory has come up. Did Noise Factory work primarily on SNK games, or exclusively?

HM: Initially, we worked exclusively on SNK titles. At one point, we were located within SNK.

BB: Other developers, such as Mega Enterprise and BrezzaSoft, are listed in the credits, but is it correct to say that Noise Factory was the main developer for *Metal Slug 4*?

HM: Yes, for *4*, *5*, *6*, *7* and *Advance*, they were all developed by Noise Factory.

BB: Can you tell us how you were brought onto the project for *Metal Slug 4*?

HM: After SNK went bankrupt, and were starting to make a comeback, they wanted to make another Metal Slug game. That's when they came to Noise Factory for the project. I was the department chief or manager, whatever, and we discussed how we should go about making the game. I then appointed programmers and staff to the project and gave direction for how to go about making the game.

BB: So, you weren't involved in *Metal Slug 4* too much?

HM: I wasn't involved with the actual development of the game, but, as the head of the department, I helped get the game off the ground. So, I was also involved with the early planning stages of the game.

"I was probably the most knowledgeable about Metal Slug because I had spent so many hours at the arcade playing it."

BB: Were the character designs done by a company in South Korea?

HM: We outsourced the artwork. The head of Noise Factory, Iiju-san, was in charge of outsourcing the artwork.

BB: At the time, when it was announced that a new team was developing Metal Slug, it felt like when Disney took over Star Wars; it's not being created by George Lucas any more. It didn't feel authentic, but, speaking with you now, it seems like there was a lot more continuity to the transition than it felt like at the time.

HM: True. Keiko Ijuu was from SNK, and the core members of Noise Factory, except myself, were all former SNK members. I think Mr. Tanaka (sound composer) was also former SNK.

BB: What was the development of *Metal Slug 4* like overall, in taking over production from SNK?

HM: It was tremendously difficult. Our budget was probably a quarter of the previous game, *Metal Slug 3*. On top of that, they somehow found some of the source code, but the original art assets and animation from *Metal Slug 3* was missing. So, we had to start by reverse-engineering the art assets from the retail ROM cartridge. It was hell. [Laughs]

BB: How long did you have to create the game?

HM: They initially wanted us to finish the game in five months. I think it took nine months.

BB: Five months without the art assets? That seems really tough. Even the first *Metal Slug* took a year and a half.

HM: We had fewer people, less budget and they wanted it in less time. It was an impossible request. The expectation from the public was that it would be comparable with *Metal Slug 3*, but the budget we were given was a third or a quarter of the budget. We were only given the source code for a game that none of us had worked on, the art assets were missing so we had to reverse-engineer it from a retail ROM; we had no tools. That was the situation we were in at the beginning.

BB: It's hard to believe you took on the challenge.

HM: I loved Metal Slug so I wanted to make something happen. It was a challenge that I was willing to take on.

BB: As an experienced game developer, and a Metal Slug fan, you could look at the game and understand what makes a Metal Slug, from the highly animated art to the animated background. What was the experience like of actually making a new game in the series?

HM: The first challenge was to figure out how to recreate *Metal Slug 3* in as short a time as possible. I think the source code that they gave us was from *Metal Slug X* (*Metal Slug X* is the enhanced version of *Metal Slug 2*), not even *Metal Slug 3*. So, the question was how quickly we could recreate *Metal Slug X* with our own tools. Then, the next question was how to create a new, better game based on the *Metal Slug X* that we recreated. I was able to do it because I was a programmer. Nowadays, I do more game planning but, back in the day, I was more of a programmer who liked video games. The biggest issue was that we didn't have a director, a visionary, like Akio-san, on our team. That was something our team lacked for all of our titles.

BB: Without a director, did everyone pitch in their ideas? How did the team divide the design work?

HM: Yeah, it was a real team effort.

BB: On the surface, one would never really know how much drama the team went through to get this game done. The team did a good job.

HM: Thank you. But *Metal Slug 4* makes me sad because it didn't turn out like I wanted it to. I wish we could have done more.

BB: So, you got the base code for *Metal Slug X*, but what else did you have to recreate yourself?

HM: Everything had to be recreated, except what we were able to take from the *Metal Slug X* retail ROM.

BB: Was there anybody within Noise Factory that had worked on a similar game with similar mechanics or systems, and had experiences that could carry over?

HM: I was probably the most knowledgeable about Metal Slug because I had spent so many hours at the arcade playing it.

BB: So, were you able to step in and tell the team, "Hey, this doesn't feel right so you should change this or tweak this"?

HM: No. The *Metal Slug 4* team did their own thing. I never told them what they were doing wrong. I'd tell them what they were doing right. "Looking good. Keep it up." Because I knew that I was already asking the impossible from them, so I avoided asking any more from them than we already were. I did give them direction at the planning stages, like certain characters should be placed here or there, and whatnot.

BB: When you guys had moved on to *Metal Slug 5*, had the situation changed at all? Maybe SNK's status had stabilised a little bit by this point. *Metal Slug 4* must have been successful enough for them to make *Metal Slug 5*, so what had changed in the development for *Metal Slug 5*?

HM: I don't think there was even a year before we started working on *Metal Slug 5*, and the budget was slightly higher for the title, compared with *Metal Slug 4*. I think it grew by about 10 million yen [about $100K], but still a much smaller budget than the first three titles. When SNK approached us for *Metal Slug 5*, we decided to work on improving the quality of the game, considering how valuable the Metal Slug IP was for SNK.

So, we restructured the team to optimise the quality of the game. In terms of the programmers, the original code we had from *Metal Slug X* was written by their lead programmer, Andy [Andoh Kenji], and was extremely complicated code. It's impossible for a normal person to decipher his code, so what we did for *Metal Slug 4* was to attach our deciphered code to his code that we couldn't decipher. All the new elements of *Metal Slug 4* were just add-ons to his original code, but I decided not to do that for *Metal Slug 5*. So we had to reanalyse the whole game and rebuild the game engine for *Metal Slug 5*.

"We found assets in Metal Slug X *that weren't published in the final product so we used them as the basis for* Metal Slugs 4 *and* 5.*"*

BB: Did Andy work on *Metal Slug 4*?

HM: No, he didn't work on *Metal Slug 4*. My relationship with Andy started just recently. I met him for the first time last June, when he started working at the same company as me. And the reason why I knew Andoh-san was 'Andy' from *Metal Slug X* was because his name, Andoh Kenji, was in the *Metal Slug X* source code as the author of the code.

BB: *Metal Slug 5* came out in 2003. That was the Sony PlayStation 2 era, but you were still initially designing this for the NEOGEO hardware, correct? Were there any frustrations for having to design for an ageing hardware?

HM: Yes, now that you mention it. There was discussion about whether we should continue to develop for the NEOGEO. But SNK was still building and supporting the MVS system, which was still prevalent at the time, and so SNK had made a strategic decision to build new content for those systems.

BB: Lacking someone of [original *Metal Slug* artist] Akio-san's caliber on the project was probably the hardest for you because he made the biggest contribution to the art and was a creative force behind *Metal Slug*. How did you compensate for not having Akio-san on the team? Did the Noise Factory team have anyone his equal on the staff?

HM: Is the quality of *Metal Slug 5*'s art that high? I think it's the opposite. I think the artists learned a lot from this experience.

BB: They did really well, in terms of the sprite quality, animation, and the details. There might be subtle differences between the pre- and post-Noise Factory games, but, generally speaking, they did a really good job.

HM: Well, the artists must have been good, then.

BB: Do you remember what the main criticisms at the time from the users might have been?

HM: The reviews of *Metal Slug 4* were quite bad. Comments like "copycats" and "wannabes". *Metal Slug 5* didn't fare much better. The reviews for *Metal Slug 6* and *7* were better.

BB: Did the games receive any criticisms for being too easy when Metal Slug was once famous for being very tough?

HM: There was a variety of feedback but, in terms of the level of difficulty, there should have been a balanced level of difficulty in the games.

BB: There's a submarine level in the game and, this might be purely coincidental, the co-planner for the original Metal Slug, Kazuma Kujo, also was the planner for *In the Hunt*. Is the submarine level a homage to Mr. Kujo's work?

HM: No. We found assets in *Metal Slug X* that weren't published in the final product so we used them as the basis for *Metal Slugs 4* and *5*. Plus, there were visual effects from *Metal Slug X* that we couldn't possibly have created ourselves that we repurposed from the *Metal Slug X* version. For example, there's a shaded effect of the water used in *4* and/or *5*, but that was all copied over from *Metal Slug X*.

BB: Do you have any other comments you would like to add about *Metal Slug 5*?

HM: Hmm… *Metal Slug 5*. We worked really hard on that one, too… but I don't think I have anything to add. I do wish I was given the opportunity to remake it.

BB: *Metal Slug 5* in particular?

HM: *Metal Slug 5* and *6* and *7*, actually. I would like to make a new Metal Slug title. *Metal Slug 5* was tough. I was the director of *Metal Slug 5*. There was no director for *Metal Slug 4*, which was a problem, so I took on the role of lead programmer and director and planner, out of respect for *Metal Slug 5*, but I learned that it's really tough to play all those roles on the same game.

BB: If you could have delegated one of your roles on *Metal Slug 5*, what would it have been?

HM: I only wanted to do the game design.

BB: Let's discuss *Metal Slug Advance*. You were the director and lead planner on that, as well. Did you do the programming as well?

HM: Yes, I was the lead programmer.

BB: That seems like a lot of work for one person. Did you take on all roles because it was the fastest, most efficient way to develop that game? You knew exactly what you wanted, so you could directly program it yourself – or were there other reasons?

HM: The biggest reason was budgeting and the matter of the cost of hiring people. We had to figure out how to make the game with a limited budget, so we couldn't afford to hire a lot of people, and a lot of the people on our team were young and inexperienced.

BB: How many people were on your team, and how much time did it take to develop the game?

HM: None of the games had a development time of more than a year, so it couldn't have been more than that. I think there were about eight people on the team. So, if you look at the credits, you'll probably see my name come up multiple times. [Laughs]

BB: You obviously had to work with a lot more hardware limitations for the Game Boy Advance version. What was the hardest part? You couldn't do any big background effects like on the NEOGEO, but, still, the foreground, sprites and animation and speed had to move smoothly. From a technological perspective, the quality of the Game Boy Advance version is very high.

HM: Thank you for pointing that out. That was extremely difficult. This is going to backtrack a little but, when making *Metal Slug 5*, I came to the realisation that there was a possibility that we would continue to make Metal Slug games past *Metal Slug 5*, and that we were never going to get the budget to make the game we wanted. So I decided we should create a versatile system that would optimise the programming side of the game so that I could maximise the budget toward the artwork and increase the quality of the game. So, once we dissected *Metal Slug X* and deciphered Andy's work to make *Metal Slug 5*, we were free to pour our energy elsewhere to make *Metal Slug Advance*. We were able to get *Metal Slug Advance* to perform animations that are virtually impossible anywhere else. There are a ton of hacks in the Game Boy Advance version. For example, the number of animation patterns are way above a standard game. In addition, the programming language between NEOGEO and Game Boy Advance is different. NEOGEO is an assembler, but the programming language for the Game Boy Advance is C++. But, because we had reassembled the system in the making of *Metal Slug 5*, we were able to port that directly into C++ using the same animations as NEOGEO. That was possible because I was the lead engineer on *Metal Slug 5*.

BB: One problem with *Metal Slug Advance* is that the NEOGEO has an eight-direction joystick, but the Game Boy Advance only has a D-pad. Technically, you have eight directions, if you press diagonally, but it's not as smooth and feels like four.

HM: Now that you mention it, yes, that was a hurdle. That was super challenging. Especially because, for Metal Slug, it's crucial to aim in the right direction. First, we had to figure out how to let the players aim and we had to come up with solutions for that. It's hard to explain.

BB: Did you have to make the diagonal presses extra sensitive to compensate for the lack of actual joystick position?

HM: Yes, for sure. I don't think people realise it, but a lot of fine-tuned adjustments went into the D-pad controls.

BB: One thing that's funny about the game is the ratio of the tank to the screen. The tank takes up so much of the screen, you often just end up pushing against other enemies on screen because there isn't any room to evade. It's not really a tactical battle, but a war of attrition.

HM: Yes, that's another part that was challenging. The biggest challenge was the level design. When the player is in the 'Slug', we froze the screen to try to allow the most movement of the Slug on-screen.

BB: Memory size was another challenge. The Game Boy has a fraction of the memory of the NEOGEO. How did you fit everything on a Game Boy cartridge?

HM: This was another challenge.

BB: Everything was a challenge.

HM: Yes, but that was especially difficult. The challenge was how to optimise the very limited memory specs of the Game Boy. Suppressing the graphics alone wasn't enough to fit the game, so we had to redesign the levels. The position at which enemies appear was carefully calculated so as to make sure that everything fit on the cartridge.

BB: The game doesn't seem to have much slowdown, amazingly. Did you put special effort into this?

HM: I don't remember there being too much slowdown on the Advance. But slowdown was, even among Metal Slug fans, and especially during boss battles, almost part of the Metal Slug experience. I mean, we tried to prevent it from happening, but it didn't seem like a huge issue, either.

BB: Were there any Metal Slug titles that weren't challenging to create?

HM: Between *4*, *5*, *Advance* and *6* and *7*, the budgets slowly increased over time. But, even at the peak, the budget was probably only half of the original titles.

BB: Did you make *Metal Slug 6* and *Advance* simultaneously or separately?

HM: There was no overlap between the development of the NEOGEO titles, but *Metal Slug Advance* might have overlapped with *Metal Slug 5* a little. I remember getting yelled at a lot because *Metal Slug Advance* was behind schedule.

BB: But you still finished it within a year.

HM: Yeah, it was under a year.

BB: Japanese publisher management could learn to ease up.

"The challenge was how to optimise the very limited memory specs of the Game Boy."

HM: I don't think it was the publisher that was adding pressure. My main job now is project management and game design, so I think the pressure was coming from SNK. But, don't get me wrong, I like SNK very much.

BB: So, none of the development was easy, but for *Metal Slug 6* you're only listed as the game designer without the responsibilities of being the director or lead engineer. Was *Metal Slug 6* relatively easier to create than the previous titles?

HM: That's exactly right. As I mentioned earlier, when we were developing *Metal Slug 5*, I had a long-term vision in mind and programmed the game with sequels in mind. So, for *6* and *7*, I was able to appoint Shinoda Nobushita as the director and lead engineer. He was the sub-programmer on *Metal Slug 5* when I was deciphering the code, so he had a good understanding of the core programming, plus he was a real gamer and especially liked shooters and Metal Slug.

That's why I was able to appoint the director and lead engineer position to him, and I was able to focus on game design and increasing the quality of the game, which was my plan all along. As far as I could see, *Metal Slug 6* came out as I had foreseen, and we were able to improve the quality of the game to where I was satisfied, so we stuck to that formula for *Metal Slug 7*. I'm listed as the game designer for *Metal Slug 6* and *Metal Slug 7*, and I was involved with the planning stage for *Metal Slug 6*, but, for *Metal Slug 7*, I really wasn't involved in most of that game. My name is listed just as a sort of formality. The only thing I was involved with was the creation of one specific boss. Everything else was handled by Mr. Shinoda.

BB: So, your plan to optimise the development worked, and you were able to start making the games on your own, rather than repurposing other people's work. Presumably, you no longer felt like trespassers in someone else's property anymore and started feeling like you were the proper Metal Slug team. What do you think made *Metal Slug 6* feel like a true Metal Slug game to the fans?

HM: YES, exactly. I think that my plan was a huge success. I was able to focus on the game design from the planning stage. I mean, I was only involved with the game planning stage, but I remember feeling super excited about the game from the planning stage because the base foundation of the game was already developed. There's a rumour about Metal Slug which is that it takes one day to code one pixel. But the backgrounds for *6* and *7* are not pixel art. We used Atomiswave instead. That improved the resolution of the game and also allowed for greater creative freedom, as well as saving on development time.

BB: It looks like the background on the *Metal Slug 6* is closer to a painting, not pixel art.

HM: Of course, if we had the budget, we would have used pixel art for the background as well. But we didn't have the budget, so, under the circumstances, by using the painted backgrounds, we were able to divert the resources and time to creating new character features, including boss characters. For example, you saw a lot of these in *Metal Slug 1*, things like wooden bridges that were made out of animated sprites. But those were too expensive [in terms of production budget] for *Metal Slug 4* and *5*, so we avoided making animated sprite objects.

These were the areas that we were able to improve upon for *Metal Slug 6*. If you look at the boss scenes for *Metal Slug 6*, there's a boss that is tumbling down the side of a mountain. The number of animated sprites are a lot higher for that boss compared with the prior two games. That's an example of how we were able to redistribute our energy within the constraints of a tight budget.

BB: *Metal Slug 6* also seems faster in terms of the action and pacing of the game. The stage after you first get the donkey, there are so many enemies, aliens and UFOs flying at you. It's really intense.

HM: Yes, exactly.

BB: In *Metal Slug 6* and *7*, you brought back characters from the early SNK titles: Leona, Ralph and Clark. It feels like you started to have some fun with the series again by implementing this. This was pure SNK fan service.

HM: Yes. That was in the planning document from the early stages but I think it was Ms. Keiko Ijuu, CEO of Noise Factory, who came up with those ideas. She was the producer on every game. And she was the director on *Ikari Warriors III*. Clark and Ralph are originally *Ikari Warriors* characters, and, because she was the director on *Ikari Warrior III*, I think she chose those characters.

BB: Here's a really abstract thought: if there was a huge cartridge where you could put all the Metal Slug games back to back from beginning to end in a single playthrough, how would you imagine the flow of the games to be? How could you tell the differences if you aren't a hardcore Metal Slug fan?

HM: That's a super difficult question.

BB: You worked on more Metal Slug titles than the original Metal Slug team, so what's the theme that ties the titles together?

> *"That anti-war message was the serious side of the game, but the relief was all the comedy going on within the game, such as soldiers looking surprised if you crept up on them."*

HM: I think it goes back to the original title. It's set in a World War I-like warzone, but it has comical elements to it. It's never all serious, but preserves a serious mood. It's kind of difficult to explain. I think a 'comical battlefield' is a consistent theme throughout all the titles. But what we found more difficult to preserve is the gameplay experience. How to create new and fun game mechanics within the Metal Slug universe. So there's the serious-yet-playful warzone setting, as I just mentioned, with a subtle anti-war message. There's a scene at the end of the first Metal Slug where the airplane flies by, pulling an anti-war banner in the back. That was mentioned as part of the Metal Slug universe, from SNK, so we were careful to preserve that message. That anti-war message was the serious side of the game, but the relief was all the comedy going on within the game, such as soldiers looking surprised if you crept up on them. Or portraying unrealistic, organic movements in machines through the animation, or having objects fly towards the player on the screen.

It came up earlier, but the elaborate water effects that were used in *Metal Slug 2* and *3* are an example of the attention to detail that gives the player a uniquely Metal Slug experience. Those are the types of things that we thought about while making the game.

BB: It almost makes you feel sorry for the characters because they're stuck in a never-ending war. There's no story arc where they get a break.

HM: True. They are stuck fighting continuously.

BB: Did you give Toshikazu Tanaka any direction for writing the music, or to key art designer TONKO for creating art for the series?

HM: No, that was both handled by Ms. Ijuu.

BB: Did any of TONKO-san's work affect the in-game art direction?

HM: We used her art for the character selection screen. I think for *Metal Slug 4*, *Metal Slug 5* and maybe for *Metal Slug 6*, as well. In general, the illustrator was hired to design the package cover art and the character selection screen in the game.

BB: Were you involved with any of the ports? *Metal Slug 6* was ported to the PlayStation 2 and *Metal Slug 7* to the PSP.

HM: No, I wasn't involved in any of the ports.

BB: So, *Metal Slug 3D* was the last title you worked on?

HM: As a supportive programmer, yes.

BB: So, it was *Metal Slug 3D* that got the development budget you always dreamed of.

HM: Yes, I wish they had used that budget for a *Metal Slug 8*. I really didn't want them to make a 3D game.

BB: Apparently, nobody did. The game was not very successful.

HM: Of course. Even I didn't want a 3D version.

BB: That came at a time when game publishers were moving away from beautiful 2D art and putting their money into the mediocre 3D art of the era.

HM: Around that time, I was asked to submit a game proposal for a 3D game but I remember resisting it. I told them, if you have to make it a 3D game, at least make it a realistic-looking 3D, not a 3D version of the 2D art. It was really disappointing.

BB: A realistic 3D version of Metal Slug would be really interesting. Do you have anything to add about the 3D version?

HM: Even though there was some initial resentment, I still wanted it to be a fun game and I felt that it was important to get the player character right, so I asked to do the programming for just that character. And we had a very good programmer to do the programming for the vehicles. He was young but very good. And I don't think there are a lot of people who have played the 3D version but, in the 3D version, you can customise the vehicle, and this young programmer worked really hard on that feature. It's unfortunate that there aren't a lot of people who played and got to experience this.

BB: Most of the original *Metal Slug* guys came over from Irem, and Irem doesn't exist in the video game space anymore, so they haven't ported any of their early titles, whereas SNK has ported all their games. Do you feel lucky that the games you worked so hard on still get played and live on?

HM: I feel very fortunate, honoured and thankful.

BB: If you had the chance to work on another Metal Slug game, and budget wasn't an issue, what would you like to achieve?

HM: I'd like to make *Metal Slug 8*. I've proposed it to them personally many times. I think I could make games all the way up to Metal Slug 20!

BB: You really love Metal Slug! Koji Igarashi – formerly of Konami and responsible for all the most acclaimed modern Castlevania games – wanted to make a 2D Castlevania with high-res 2D graphics. All of the fans wanted him to make another Castlevania like this, especially during the PS3 era. Likewise, it would be interesting to see a high-res Metal Slug. If you were to make *Metal Slug 8*, would you keep it in old-school 2D or would it be higher resolution?

HM: I already have a clear idea of what it would be like. There already are a lot of Metal Slug-like pixel games on Steam. The game I have in mind has pixel backgrounds with pixel characters, but the effects would use the latest technology and be high-res, beautiful effects.

BB: Here's hoping you get your wish.

HM: I'm friends with Mr. Kukino, who was the director for *THE KING OF FIGHTERS 12* and *13*. Mr. Kukino had written a proposal to remake *Metal Slug 3* while he was still at SNK, and his proposal was exactly as I mentioned it, pixel backgrounds and characters with upgraded effects. And he continues to pitch this game concept to SNK to this day.

BB: Any final words for Metal Slug fans?

HM: I feel the fans' passion for the series will guarantee that there will be a new Metal Slug game. If I start a crowdfunding effort, please contribute to the project.

BB: Thank you for your time.

Toshikazu Tanaka

Toshikazu Tanaka, often credited as 'Dencyu' or 'TARKUN' in the credits of games he has worked on, is a soundtrack composer and sound designer whose work dates back to the days of *Ikari Warriors II: Victory Road* and runs the gamut like a highlight reel of SNK games, ranging from *Fatal Fury* to *THE KING OF FIGHTERS* to *Metal Slug*. In one of the more unusual career paths for someone who contributed to the Metal Slug series, Tanaka had already left SNK by the time he began composing for *Metal Slug 4*, having gone independent before then. His career trajectory found him working at SNK, then Atlus, then for the small dev team Noise Factory, and then finally as a self-employed freelancer at Studio Aqua. We spoke with the prolific sound creator about his role in the Metal Slug series.

BB: Since taking over from HIYA! and some other composers on a well-loved franchise, you were already an experienced game music composer. Did you feel any pressure to live up to the legacy of the games?

TT: Composing music for Metal Slug was the first time I had composed music for an established franchise, so it's hard to say, but I didn't particularly feel any pressure. One reason is because, surprisingly, I had never heard of Metal Slug when I accepted the job to write the music for *Metal Slug 4*. But, once I started working on the project, I definitely felt the challenges of working on a franchised title. I felt it was too hard to write music that was similar to the prior games but at the same time, it felt wrong to impose my signature style on the game. Still, for *Metal Slug 4,* I made an effort to write music that was similar to the prior games, but that didn't seem to work as well for *Metal Slug 5*, so I decided to stick to my own style. For *Metal Slug 7,* I left out all the heavy metal music that was used in *3* and *4,* and tried to make the music closer to the music for the first three games.

BB: What did you bring to the series that is unique to you, while keeping the essence of the original titles?

TT: What did I contribute? That's a very difficult thing for me to say [about my own work] particularly since I don't know if I was able to contribute much to the franchise. I think that, for fans of my music, they were able to appreciate that whatever I brought to the Metal Slug series, this would be the result. Especially with *Metal Slug 5*, I really went all-in, so I don't know if the original Metal Slug fans appreciated it, but I think my fans were able to enjoy it.

BB: Prior to working on Metal Slug, you weren't aware of the series. What were you working on?

TT: I think I was working on *Gouketsuji Ichizoku* [Atlus' fighting game series, *Power Instinct*] while working at Atlus at the time. When I was hired to work on *Metal Slug 4*, I had started working as a freelancer under the title Studio Aqua. I had never heard of Metal Slug, but I started playing the game and listening to the soundtrack after I was hired for the job. I had to work under a very tight deadline, so I remember it being a very tough project.

BB: What is your working style like, and how much insight do you ask for from the game's director or producer, for example?

TT: The director or producer will explain to me the game's mood and the stage design of where the music will play in the game. If the development of the game has started, they will show me the game. I ask them what kind of music, the genre, they have in mind. However, there are times, as with *Gouketsuji Ichizoku*, where they leave it completely up to me.

Based on the information I get, I'll write the music that comes to me. Sometimes it comes easily and sometimes it takes a while for me to compose the music. I tend to come up with the melody first.

BB: Who are your musical inspirations, and do you try to bring this into your work, or do you keep the two separate? I know you enjoy a lot of classic hard rock, such as Deep Purple, Van Halen, etc.

TT: I often find inspiration while watching movies and TV shows or listening to the music while walking around town, but sometimes a song will just come to me when I'm not listening to anything.

I don't particularly like game music so I don't listen to it a lot, so I don't think there's a lot of influence in my music from other games. I prefer to listen to guitarists (rock, jazz, classic guitar, etc.) so I'm sure there's some inspiration there. I also listen to a lot of orchestra, movie and soundtracks to TV dramas, so I think those have influenced my music as well. In terms of the melodies, I think I've been influenced by old Japanese songs and the anime songs that I grew up listening to as a child.

> *"Based on the information I get, I'll write the music that comes to me. Sometimes it comes easily and sometimes it takes a while for me to compose the music. I tend to come up with the melody first."*

BB: For your work on Metal Slug, were there any musical themes or homages you kept from the original soundtracks? What was your creative process like when you began working on Metal Slug?

TT: I tried to maintain a consistency with the original soundtracks for *Metal Slug 4* and *7*. I played the game and listened to the BGM quite a bit. However, maybe due to the lack of restraint on my part, I couldn't help adding my own flair to it and, as such, it didn't turn out quite like the original. For *Metal Slug 5*, I conceded the fact that, if I couldn't make it sound like the original, I might as well make it my own, and went full metal.

So, I did make the music all metal but, for the last boss and 'Stage Clear' theme, I added sounds that were familiar from the original series. [*Metal Slug 3D*] was another title that I tried to incorporate some original *Metal Slug* music into, but, for the most part, I composed it with my own style. The writing process for Metal Slug wasn't any different to the way I worked on other titles. I always work in pretty much the same way. I first come up with the melody while thinking about the setting and situation, then I add instruments and arrangements later.

BB: Was there any effort in distancing yourself from past works and wanting to establish something new?

TT: There was a bit of that in *Metal Slug 3D*, but I was given a lot of creative freedom, so I thought of my projects as a different entity from the prior titles. So, even the tracks for the last boss and 'Stage Clear' screen have a different feel. For the 2D versions, I tried to conform to the prior titles but I don't think it really worked. For the 2D games, I did make an effort to conform to the original songs, but they all came out equally different.

BB: You've worked on some great games – *Ikari Warriors*, *Metal Slug*, *Groove On Fight*, *Purikura Daisakusen*, *King Of The Monsters* etc. – what would you say are the common elements found throughout your compositions?

TT: I always try to write music that will leave a lasting impression on people. That can be a piece that has a strong impact or a catchy melody line or whatever, but I strive to write music that people will associate with the game and remember later. I call it 'Denchu setsu' and it refers to something I hear my fans talk about. It's a phrase in the music that is distinctive, and I consider it my unique signature. But, sometimes, my music stands out too much and is not so good as 'background music'. [Laughs]

BB: You've had numerous aliases, such as TARKUN and Dencyu. Were these imposed upon you by the companies you worked for, or was it a creative decision of your own? Aliases were not unusual for developers in those early days of Japanese video game development, but multiple alias were.

TT: I didn't distinguish the name based on my role or personas. I think I was TARKUN (or Ta~kun) while at SNK, and, when I went to Atlus, I changed it to Dencyu (or Denchu). Since going independent, I've used my real name 田中敬一, Toshikazu Tanaka, or Studio Aqua. Personally, I like Denchu so I think I've used that sporadically, as well.

BB: You've worked on many different gaming hardware systems through the years; can you tell us which ones have been the most enjoyable to compose for – for whatever reasons, creative, technical, etc. – and which ones have been the most challenging?

TT: This is a hard question. I've worked on a lot of different hardware and each had their unique qualities. When I think back, I can think of good and challenging things, so it's hard to choose just one. But, if I were to choose just one, it's probably the NEOGEO. I was involved from the beginning of the development of the hardware, setting the sound chips and programming the music. It was very rewarding, but there were also many challenges. I had to compose music that showed off the hardware, but I had to use the brand-new development tools and sound drivers, so it was definitely challenging.

BB: Your soundtrack for *Metal Slug 3D* is one of the best things about that game. What are your memories of the development of this, and what did you set out to achieve with the soundtrack? Did you feel any pressure or freedom composing for the first 3D entry in the series?

TT: It makes me happy to hear that. The setting for the 3D version was completely different from the 2D versions, so I didn't feel the need to preserve the musical mood of the earlier versions and was given a lot of creative freedom for this title so, in that sense, it was a lot easier to write the music for this game. It was a big project so there was a bit more pressure to deliver, but I recall there was more a sense of excitement than anything.

I don't remember there being any sort of limitations, so I was really able to make music to my heart's content. But, because of the scale of the game, the development time was a lot longer than I was used to in the past. There were a lot more sound effects that I had to create by myself. I remember that in particular being very challenging.

BB: Of all the various Metal Slug games that you worked on, which do you think is your best or favourite work, and why? It could be the energy of the team you worked with, or how fresh a particular entry felt. We'd like to imagine what your work environment and inspiration must have been like during this time.

TT: It's hard to say because I love all of them, but, if I were to choose which one is the best as a Metal Slug soundtrack, I think *Metal Slug 7* was the best.

I don't remember too much about the work environment and how I was feeling while working on the series. I was working as a freelance sound creator so it was just me working from home. I'm pretty sure I was constantly in distress while working.

BB: Some might wonder how you felt about coming on to compose for the Metal Slug series of games, with its militaristic themes, but you're actually one of the original veteran composers of such soundtracks, having worked on *Ikari Warriors*, *Guerilla War*, *Iron Tank,* etc.

When you compose the score for these games, do you do so with the notion of the player possibly listening to the music as a stand-alone experience, or, in the early days, before you could buy soundtracks, did you only concern yourself with the momentary experience of hearing the music in arcades?

TT: True. I never thought, while composing music for *Ikari Warriors II: Victory Road*, that people would listen to it as a stand alone experience. I think I started thinking about that from around the NEOGEO titles. And, of course, by the time I was working on the Metal Slug series, I was conscious of the fact that people would listen to just the music. So, I'd initially record a stereo mix so that the music would sound good on a CD, and then I would remix the music to mono so that the music would sound good in the game. Because there was an extra step, it was more work than usual.

> *"I'd initially record a stereo mix so that the music would sound good on a CD, and then I would remix the music to mono so that the music would sound good in the game."*

BB: As a composer, were you able to play the work-in-progress games as they were developed, so as to compose the music for them along the way, as they do in Hollywood films? Or did you typically wait till closer to the end of development, when things were more finalised? Please describe your working style.

TT: Yes, of course. In fact, I think it was more common to start making the music before most of the game was developed. I would write music off of the storyboards and rough sketches of the stages. By the time the game was playable, I had usually finished a number of songs for the game.

BB: Was anyone at SNK influential in your work, such as the director of the game or your supervisor? Or were you pretty much left to create as you saw fit? Did you ever have any requests to redo anything that the director, for example, didn't think was a good fit musically?

TT: When I was at SNK, there were times when there would be more than one person writing the music for the project. So, there were times when a different person would be writing music for different parts of the game. I would consult with the director or supervisor in the sound department and colleagues. And, of course, there were times when I was asked to change or edit the music. There were many edit requests to music (in other words, rejected songs) both while at SNK and since I've gone independent.

BB: Who else do you admire in the video game industry as a game music composer or composer in general?

TT: I really respect and love Ryuichi Sakamoto and Joe Hisaishi's compositions. In the world of game music, I'd say Nobuo Uematsu. But I respect everyone who has been in the game industry writing game music longer than me. It's tough to make a career writing video game music.

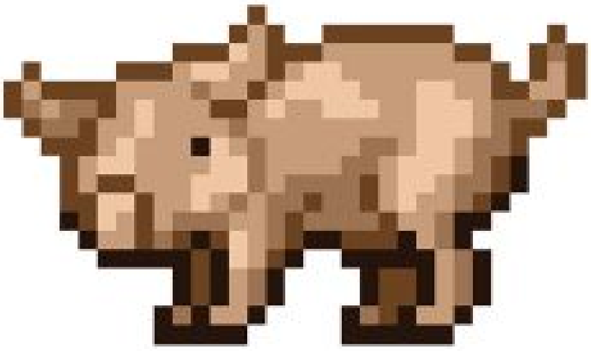
BB: Since you worked with them, who are Noise Factory, and where did they come from?

TT: Noise Factory was founded by a former SNK employee (also a former Atlus employee) and the company was completely independent from SNK. I worked with that person at Atlus and Noise Factory. Even after I went independent, they continued to hire me for various projects.

BB: Finally, where did the name 'Studio Aqua' come from?

TT: Studio Aqua is the company I created once I went independent. Tanaka is a very popular last name in Japan so I named my company Studio Aqua so that people could easily remember 'Tanaka from Studio Aqua'.

BB: Thank you for your time speaking to us today.



TONKO

TONKO

Best known by her pen name TONKO, an interview with this most prolific of SNK's formidable stable of artists is as rare and wonderful as a unicorn sighting in the video game industry. A long-time SNK artist, as both full-time employee and occasional freelancer over the course of her career, TONKO's work can be found gracing the covers or key art of many of the publisher's most famous franchises. Her illustrations for games like The Last Blade series, *Garou: Mark Of The Wolves*, various THE KING OF FIGHTERS games, and the SNK vs. Capcom Card Fighters series are instantly identifiable around the world, thanks to her beautifully illustrated characters, distinctively clean linework, and whimsical style. She is also well known for her contributions to the Metal Slug series, most notably *Metal Slug 4* through *7*.

Landing an interview with the elusive TONKO is no easy task, which makes it all the more special that we had an opportunity to speak with her for this book. In the course of our conversation we discover what her inspirations are, what it was like growing up as an artist in Japan, her role in the creation of Metal Slug characters, that mechanical designs still give her fits, and what her most cherished memories of the legendary series are.

BB: Due to the diverse nature of your body of work, tell us more about the artists, mangaka, anime and influences you had growing up. Who are some of your favourite artists and whose style had the most impact on you personally?

T: I have been influenced by many wonderful artists, including the illustrators at SNK. I personally like images of the backs of beautiful women, so I admire Robert McGinnis' movie posters and Buichi Terasawa's [*Space Adventure Cobra*] female characters.

BB: Did you always draw growing up? Most artists seem to have an affinity for this from an early age. Were you the type of child who drew all the time?

T: I loved to draw from a young age. When I was in elementary school, I admired Rumiko Takahashi's *Urusei Yatsura* and wanted to become a manga artist. When I was a child, I played lots of games on Family Computer and Super Famicom. But, actually, I'm not really good at action games. That's why, at that time, I enjoyed role-playing games like *Romancing SaGa* and *Wizardry* more.

BB: In Japanese society, it seems perhaps even less typical for female artists to rise to such prominence, especially in a commercial market like the video game industry. Were your parents very supportive of your drawing skill, or did you face resistance to your ultimate career path?

T: There are a lot of female illustrators in Japan so I never thought of myself as a rare case. I graduated from an art school and my parents never disapproved of my career path. Maybe they saw that art was my only trait but, regardless, I am grateful for their full-hearted support. However, when I started at SNK, the video game industry was not very big, so I did have to explain to them what sort of company it was and what my job entailed.

> *"The illustrators at SNK are all given the freedom to add their unique style to their drawings."*

BB: Your work, which spans across quite a bit of SNK history, pivots from the more realistic artwork of the fighting games I've mentioned, to the purely manga-style art of the SNK vs Capcom Card Fighters games, to somewhere in between for the mechanically detailed but comic stylings of the Metal Slug series. This points to your versatility as an artist. What do you attribute your flexible illustration skills to?

T: I try to adjust my techniques to fit the title's style, but I'm not sure if I am doing it well. There are times when I feel I'm trying too hard. It's not about Metal Slug though; I had a hard time when drawing for romance simulation games.

BB: When you took over as the key visual artist for Metal Slug with *Metal Slug 4*, were you offered any specific direction on what to maintain from previous games? Conversely, were you given a certain amount of freedom for advancing the style forward?

T: I was given a lot of freedom. The illustrators at SNK are all given the freedom to add their unique style to their drawings. When I was a kid, I was influenced by lots of comics and animations, which naturally leads me to this style. Also, I use this style because I find this kind of comic-like characters is more familiar and acceptable to young people in Japan.

BB: Did you feel any sort of personal pressure in following in the footsteps of the previous Metal Slug cover artist, Shinkiro, when assuming your role in the development of *Metal Slug 4* [and onwards]?

T: There was pressure, but I felt that, if people felt my contributions were within the realm of an acceptable style, it was OK. At that time, the artists were in charge of different games and we didn't really share our ideas with each other.

BB: *Metal Slug 4* introduced the characters Nadia Cassel and Trevor Spacey. Were you responsible for creating these characters, or did Joo Hwan Sohn [of South Korean developer and *Metal Slug 4* co-developer Mega Enterprise] create them?

T: I was hired by [*Metal Slug 4* co-developer] Noise Factory to design Trevor.

BB: Were you given any direction in his personality or how he was illustrated?

T: I think most of the character's features were decided, except what he looked like. I believe the only criteria was to make sure he was good-looking. I think I submitted a version of him with a hat and beard but those were turned down. I received several sketches and chose features from them.

BB: What was your goal in creating this character for the series? Did you hope he would become as iconic as other characters in the series, such as Fio?

T: When designing Trevor, I had hoped that the character would be accepted by the Metal Slug fans. It makes me happy to see that Trevor is still used in the app versions of the game [*Metal Slug Attack*], and I guess it's safe to say that Trevor has been accepted by the Metal Slug community.

BB: This was the first game developed by external development teams – Mega Enterprise and Noise Factory. Who did you primarily work with?

T: It was right after SNK had filed for bankruptcy, so I recall that I was hired as a freelancer by Noise Factory.

BB: What other contributions did you make to the development of Metal Slug 4 that we may not know about? Or were you primarily responsible for creating the key art for marketing purposes?

T: I also did the character selection screen art. I didn't know whether it would be given to the pixel artists or not. I guess the style of the screen art of Metal Slug didn't really match up with the pixel art [so they had me draw the characters for the selection screen].

BB: *Metal Slug 5* saw the return of Eri and Tarma. Were you obligated to illustrate them as they'd appeared in the past, or did you have freedom to interpret them in your own style?

T: I drew them in my own style.

> *"There are a lot of female illustrators in Japan so I never thought of myself as a rare case. I graduated from an art school and my parents never disapproved of my career path."*

BB: While fans may debate the success of a new team developing *Metal Slugs 4* and *5*, from *Metal Slug 6* and onwards it felt like the series had returned to its roots of fast action and gorgeous graphics. How did your working process change with the development returning locally? Were you able to work more closely with the development team, or did your process remain the same?

T: I did the illustrations for the game's promotion, and didn't work directly with the development team, so the change didn't really affect me. I received documents like pixel art and designs from developers at the beginning. The main communication was conducted by the producers of the public relations team. They were in charge of the assets not included in the games, like posters, packaging and instruction manual.

“Mech and military are not my forte to begin with, so I struggled with Metal Slug. I continue to struggle with this genre today. But the mechanical designs in Metal Slug are all so cool and adorable.”

BB: *Metal Slug 6* was fun because it brought back the ‘classic line-up’ of Marco Rossi, Tarma Roving, Eri Kasamoto and Fio Germi, but also introduced Ralf Jones and Clark Still from *THE KING OF FIGHTERS* and *Ikari Warriors*. Was it fun to reimagine all of these characters, and what flourishes of your own did you add to modernise them?

T: Both Ralf and Clark are popular characters, so I didn’t want to deviate from their original image too much, but I did want to draw them in a more humorous, light-hearted way.

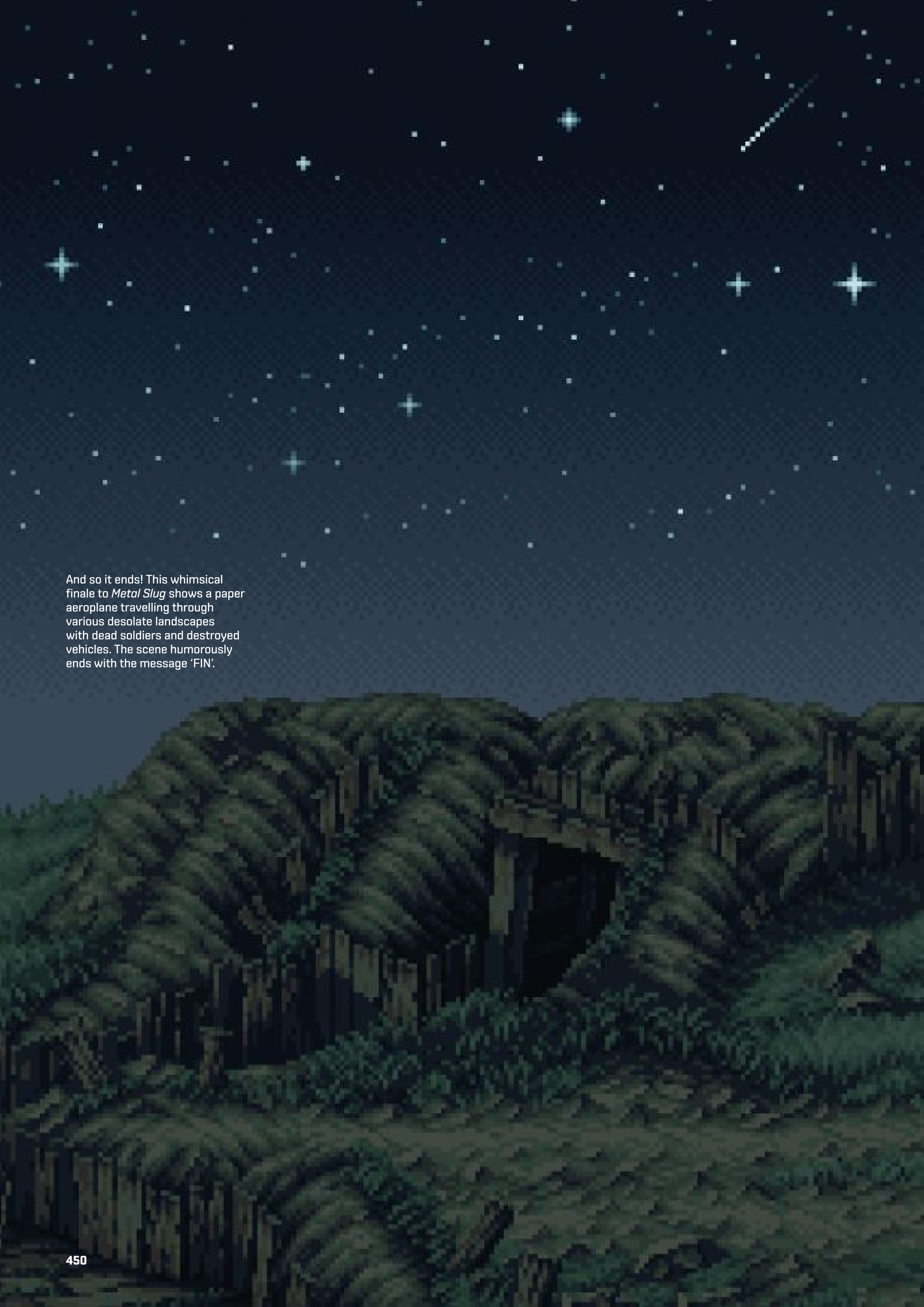
BB: The Metal Slug series has always – for very obvious reasons – placed a very strong emphasis on mechanical design. The games you worked on seem to even increase the wildness of the mechanical enemies you encounter and vehicles you use. Do you consider this a forte of yours, or something fun to create, or is it difficult for you? What artists do you admire for their ability to create machines and vehicles? Artists like Hayao Miyazaki and Shirow Masamune were influential on the Metal Slug series in the past, but artists like Akira Toriyama are also very well-known for their mechanical designs.

T: Mech and military are not my forte to begin with, so I struggled with Metal Slug. I continue to struggle with this genre today. But the mechanical designs in Metal Slug are all so cool and adorable. If I wasn’t limited by time (and I was a better artist), I would love to include all of the vehicles and mechanical objects in the illustration. I wish I could better communicate the charm of Metal Slug! That’s how I feel every time.

BB: Aside from what we’ve talked about, what other memories of your contributions to the series stand out to you as being special or particularly fun?

T: I am a fan of the Metal Slug series and I have fond memories of going to the arcades (NEOGEO Land) after work with my colleagues, and I played *Metal Slug 2* and *Metal Slug X* countless times with stacks and stacks of 100 yen coins, endlessly pressing ‘continue’. Another fond memory is how I was blown away at the pixel art and how incredibly difficult *Metal Slug 3* was when it was released. (I still sometimes play it on my Nintendo Switch.) Lastly, I feel fortunate to still be involved with the series as I did the illustration for *Metal Slug Attack* which was released recently.

BB: Thank you for your time.



And so it ends! This whimsical finale to *Metal Slug* shows a paper aeroplane travelling through various desolate landscapes with dead soldiers and destroyed vehicles. The scene humorously ends with the message 'FIN'.

Thanks and credits

Without these people, this book would not be possible:

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Metal Slug: The Ultimate History
メタルスラッグ: 究極の歴史

Bitmap Books is incredibly proud to announce *Metal Slug: The Ultimate History*, the first officially licensed book to document the lineage of one of gaming's most beloved franchises. An instant classic upon its debut in 1996, the original *Metal Slug* laid the foundations for an action-packed series which would become globally renowned for its tight gameplay, gorgeous hand-drawn visuals and playful sense of humour. Metal Slug has effortlessly retained these core attributes across multiple sequels and spin-offs in the years since, and this publication – the first officially licensed and fully endorsed book of its kind, ever – aims to not only illuminate the rich history of the franchise via hundreds of screenshots and a comprehensive written account of its often mysterious history, but also seeks to celebrate the iconic artwork which has made millions of players fall in love with the antics of the plucky Peregrine Falcon Squad. To help achieve this goal, SNK has offered unprecedented access to its vast archives of concept artwork and illustrations, some of which is being made publicly available for the first time. The book also contains exclusive and incredibly detailed interviews with key members of the development team, including Kazuma Kujo, Takushi Hiyamuta, Andoh Kenji and Takeshi Okui, the latter two of which have never spoken about the series previously. These insightful discussions bust myths and reveal the real truth behind the creation and evolution of this esteemed franchise.

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